RELIGIOSITY AND AMBITION: AN EXTENTION TO A CONTEMPORARY SOCIOLOGICAL MODEL

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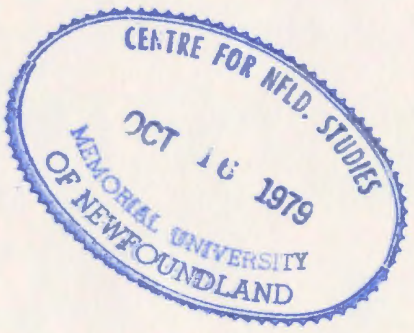
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RELIGIOSITY AND AMBITION: AN EXTENTION TO A CONTEMPORARY SOCIOLOGICAL MODEL

by

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ABSTRACT

This study deals with the ambition formation process of Newfoundland youth. Socioeconomic status, family size, program enrollment, and self-concept of academic ability, factors traditionally used in models of this process, are related to educational and occupational expectations. The extension to the model is provided by the addition of a hitherto unexamined variable -- religiosity. Religiosity, defined as "self-perceived strength of religious belief" is assumed to reflect the value orientation of the adolescent to religion. Two separate models are considered: (1) the examination of educational expectations and occupational expectations as separate outcomes, and (2) the examination of educational expectations and occupational expectations as an aggregate measure called ambition. These models are analysed using path analysis and total causal effect analysis for the total sample, for males and for females.

Religiosity is found to have a significant direct effect on the development of self-concept of academic ability. The addition of religiosity to the model of the ambition formation process increases its explanatory power. The significant factors in this model are found to differ for males and for females.

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CHAPTER I

INTRODUCTION TO THE STUDY

The Problem

This study addresses itself to the examination of educational and occupational ambition of high school youth. Concern over the disparity of educational and occupational goals, when academic ability is controlled, has led to increasingly complex models explaining this differential ambition. As yet the picture is incomplete. This study will attempt to further elucidate the ambition formation process by reexamining some traditionally accepted factors as well as adding a new dimension--religiosity--to the explanatory model.

Schwarzweller (1973) pointed out that regional circumstances have an effect on educational plans even when other factors such as social class are considered. Newfoundland has different historical and social conditions than the rest of North America (see Fagan, 1974 for a discussion of these factors, Stern, 1974). As Tilley (1975) noted, other works on post-secondary plans have been completed in advanced and developed societies whereas Newfoundland is still in the developing phase. It has been observed that in the western industrial world, economic development preceded the development of the basic educational

framework. In Newfoundland, however, Smallwood's educational policies were geared to developing such an educational infrastructure on the assumption that economic development would follow. This leads us to believe that the ambition formation process in Newfoundland may differ over and above what would be expected as normal regional variation. That is, there may be different factors or a different emphasis on the same factors, or both, at work in the Newfoundland situation.

Standard models of the mobility process take social origins factors as starting points, adding social-psychological variables as mediating factors in explaining the variation in ambition formation. Consistent with this theoretical framework, family background factors (as measured by socio-economic status and family size) will be related to the present experience in the school (program enrollment) and to self-concept (as measured by self-concept of academic ability) in the present study. All of these factors will then be examined for their effects on educational and occupational ambition.

Sewell and Hauser (1975) state that one of the three questions to which a sociological interpretation of the achievement process must address itself is "To what degree do an individual's achievements depend on factors other than his own ability, aspiration, and effort?" Thus, it is the purpose here to add a new dimension to the explanation of the ambition/achievement/mobility process. It is proposed to examine the effects of religiosity when added to the more traditional model.

Religiosity

Max Weber's thesis concerning the relationship between the Protestant Ethic and the Spirit of Capitalism and Durkheim's theory of religion as a social system endowing the adherent with the ability to cope with life have stimulated research examining the effects of religious affiliation on various achievement processes. The conflicting evidence arising from investigations of derivatives of Weber's and Durkheim's theories leads us to believe one of the following:

1. religion is not critically relevant to an understanding of the aspirations models (Bordua, 1960; Greeley, 1964, 1967; Glenn & Hyland, 1967; Mueller, 1971; Mueller & Land, 1972);
2. the hypotheses have not been properly derived from the works of these masters (Bouma, 1973; Kim, 1977); or
3. what should be examined is a basic religious value orientation which is incompatible with research along denominational lines.

It has been suggested that religion may not be relevant to an understanding of aspiration models. However, most studies have used different instruments to measure religiosity. The relationship between religious belief and religious participation is not at all obvious and one must be careful to make the distinction.

Gaede (1977) suggested that religious belief and participation may act independently of one another. Church participation has been found to be greater for those individuals whose beliefs are more orthodox and church commitment

declines as orthodoxy of belief declines (Stark & Glock, 1970; Hadden, 1969). Other studies have found that upper class people tend to "practice" their religion whereas lower class people tend to "believe" their religion (Demerath, 1961; Fukuyana, 1961; Hertel, 1973). Gaede (1977) concluded, however, that there is a relationship between orthodoxy of belief and religious participation.

It has been argued that the contradictory findings of the relationships of religiosity with various phenomena reported in the literature may stem from different operationalizations of the variable religiosity; that is, the relationships vary as a function of which dimension of religiosity is measured (Cygnar et al., 1977). This may account for the apparently spurious associations found between religion and other variables in the various models examining ambition formation. The belief in this study is that religiosity is relevant to an understanding of ambition formation of Newfoundland youth because of the very vital function that religion per se plays in the lives of Newfoundlanders (see Fagan, 1974).

Kim (1977) maintained that past Protestant Ethic research has been misspecified because these previous studies did not adequately operationalize Weber's thesis in "The Protestant Ethic and the Spirit of Capitalism". Previous research has dealt with religious identification rather than with Calvinist beliefs and values. Kim suggested that Calvinist beliefs and values have become so diffused among Protestant

denominations, religious sectarians, and Catholics that the beliefs and values they hold are practically identical. He further suggested that "any study of the behavioral correlates of religion should abandon the use of religious affiliation as a measure of the Protestant Ethic" (p. 261). Since there was no means to evaluate Calvinist beliefs and values in the questionnaire used in the present study, any attempt to evaluate Weber's thesis per se must be set aside. Similarly, it is not within the scope of this study to examine Durkheim's thesis.

Thus, this study will subscribe to the third approach which suggests an examination of a basic religious value orientation. This is somewhat similar to Kim's explanation of Weber's thesis. However, it differs in that religiosity will be defined as self-perceived strength of religious beliefs. This definition is theoretically closer to Yinger's definition of religiosity.

Yinger (1969) defined religiosity, with a small "r", as a person's efforts to grapple meaningfully with what he personally defines as the ultimate. As such, it is distinct from Religion, with a capital "R", which refers to the religious leaders, history, devotees, rituals, etc. (Clayton & Gladden, 1974).

It is quite clear that the definition and operationization of religiosity used in this study does not have the scope of Yinger's definition but the foundation is the same. That is, the attempt is to measure a general internalized religiosity.

Much recent interest has been expressed as to how general "religiosity" should be measured. There has been a continuing debate as to whether religiosity is a multi-dimensional concept (Root et al., 1977; Cygnar et al., 1977; Muthen et al., 1977) and should be measured on a composite scale or whether it is a uni-dimensional concept and as such can be determined by a self-rating question (Clayton & Gladden, 1974; Gorsuch & McFarland, 1972; Campbell & Coles, 1973; Embree, 1973).

Because of limitations imposed by performing a secondary analysis on existing data, there is little control over the kind of measurement to be utilized. A single, self-rating question will, by necessity, be employed. However, it must be emphasized that it seems that this measure is appropriate to this study.

Machalek (1977) argued that different definitional strategies lead to different kinds of information about the social world and that their value lies in the knowledge that is produced. He maintained that there is little gain in advancing one definition of religiosity for all purposes and that any definition used must be evaluated in terms of the adequacy with which it purportedly represents an empirical phenomenon. Because of these factors it is argued that the general religiosity of adolescents is best measured by a uni-dimensional self-rating question.

Few other studies have, as yet, incorporated this variable in the standard model of ambition. Lee and Clyde

(1974) did examine the extent to which religiosity plays a part in forestalling or producing anomie. To the author's knowledge, however, no study to date has examined the role of religiosity, defined as a uni-dimensional, generalized orientation to religion, in a model of the ambition process.

Thus, it can be seen that this study addresses itself to the problem: to what extent does religiosity play a part in determining ambition, all other things being common, namely, other factors that are more traditionally examined in a model of educational and occupational ambition.

Significance of the Study

Although five other studies have examined the educational and occupational ambition of Newfoundland youth (Breton, 1972; Bulcock, 1975; Parsons, 1974; Tilley, 1975; Coffin, 1976), the belief here is that further consideration of the ambition formation process is merited. Only Bulcock (1975), Tilley (1975) and Coffin (1976) utilized both program enrollment and self-concept of academic ability simultaneously as intervening variables in an examination of post-secondary goal formation. However, only one of these studies (Bulcock, 1975) used the analytic techniques utilized in this study (path analysis and total causal effect analysis) for analysing the relationships among the variables. A new variable--religiosity--was introduced into the analysis and was examined for its effects on both males and females. This is also uncommon in that males only are usually the focus

of attention when ambition formation is examined.

In light of the significance of religion in Newfoundland it is important to test this factor in a model of ambition formation.

The practical importance of this study may be negligible in that little can be done by teachers and school administrators to manipulate most of the variables under investigation. The problem being assessed, however, is one that stems from the discipline: to further the knowledge in the field of the Sociology of Education by retesting an existing model while adding a new dimension - the effects of the value orientation of religiosity. It is an attempt to provide a more complete explanation of the factors that affect differential ambition of Newfoundland youth. As such, the problem is a valid one in that it is congruent with the philosophy of science which emphasizes the need to expand existing knowledge from an established base; thus the problem at hand has theoretical value.

Limitations of the Study

Some limitations arise due to the sampling procedure and the method of analysis employed. The data set used was not based on a random sample and so the generalizations and conclusions that may arise from these findings should be restricted to the specific schools used. Holloway (1975), however, did not believe these schools to be atypical in that they were specifically chosen to reflect all typical

characteristics of high schools in Newfoundland. However, given the costs and efforts involved in compiling new data, it was felt that this data set could be adequate in gaining new insights into the problem at hand even though many sampling assumptions may have been violated.

The sample size in relation to the number of variables involved in the models necessitated the use of data aggregation techniques when estimating socioeconomic status and self-concept of academic ability. Because the models were examined for both males and females, the recommended number of respondents per item in the questionnaire, N = 30, (Harman, 1967) was not met and thus factor analytic techniques were used to compile these measures. It must also be emphasized that socioeconomic status and self-concept of academic ability are latent or unobservable variables and only stand as proxy measures for the environment provided by the family and for the student's self-regarding attitudes respectively.

Regression analysis is generated from correlation coefficients. These correlation coefficients assume interval scales whereas all of the measures in this study were ordinal. Labovitz (1967, 1970) has shown, however, that although a small amount of error may arise from violating these assumptions, it is more than compensated for by the use of parametric statistics.

Path analysis assumes that a causal ordering is known and that the ordering is causally closed to outside

influence. It is obvious that many influencing factors have been omitted. However, despite the limitations imposed by the questionnaire (i.e., by the cross-sectional design) and for the sake of parsimony, it was felt that the ordering of the variables is consistent with the models presented in the literature.

CHAPTER 2

REVIEW OF THE LITERATURE AND THE THEORETICAL MODEL

The Independent Variables

Educational and occupational goals are among the first tangible indicators of the mobility expectations of the high school youth. Consistent with the typical models of the mobility process, family background factors are taken to be exogenous in the present model. That is, a person's starting point in the social system has a great influence on his/her experiences in school and society and also on the attitudes he/she develops about himself/herself, others, and the role he/she will assume in that society. The specific factors that are considered from this domain are the socioeconomic status of the student's family and the size of that family.

There is a paucity of adequate research regarding adolescent religiosity and what limited information does exist frequently seems contradictory (Vener et al., 1977). While Clark (1929) and Allport (1948) saw this period as a typical one for religious conversion, others (Fuerst, 1966) claimed conversion takes place in later years. Still other studies reported that doubts and questions with respect to religious convictions are typical of adolescents (Savin-Williams, 1977; Strommen, 1972; Remmers & Radler,

1957; Gesell, 1956). In his overview of available data, Strommen (1971) concluded that one reason for the divergent findings was the different religious perspectives and instruments used by the investigators. As a rule, however, adolescence is portrayed as a period of emotional upheaval and growth (Vener et al., 1977). Despite the general shift from a literal belief in Christian dogma to a more liberal attitude toward religious doctrines during this time (Savin-Williams, 1977), adolescents do not outgrow all the conventional moral orientations established in childhood (Vener et al., 1977). Thus it can be argued that by the time a person reaches his middle teens he will have developed certain value orientations and hence religious beliefs, although these feelings may change over the period of early adolescence through old age (Rokeach, 1973). It would seem that an internal commitment to religious beliefs during this traumatic period would have an ameliorating effect on the adolescent.

Currently, there seems to be a great deal of concern about the turning away from the church in the traditional sense (Poythress, 1975) to a more internalized religion noted here as religiosity. Some claim that the American cultural emphasis on economic success is taking precedence over more traditional religious beliefs (Merton, 1968). It is no longer deemed necessary to pay lip service to the outward manifestations of belief in the traditional sense such as regular church attendance. Yet studies have shown

that the level of religious feelings, as they pertain to one's personal beliefs, have not declined (Hertel & Nelson, 1974). Vener et al. (1977) reported findings that there has been a stability of belief in God as a "watchful and protective father" over the past three decades.

If parents and others are transmitting religious beliefs to today's youth without any of the outward trappings, religiosity is surely a more viable measure of the effect of religion whatever it may be. Those who maintain traditional patterns of church attendance, regular praying, etc. are not excluded from this measure. Thus, all those who do not conform to the traditional factors, yet consider themselves religious, and who in the past have been excluded from such investigations (Poythress, 1975) will be included now. To the author's knowledge, such a measure of religiosity has yet to be included in an examination of the expectations/aspirations/mobility models.

It is not in the scope of this paper to examine the causes of the variance in religiosity. This study can only address the examination to the results of religiosity at the period of a youth's life when he/she is forming educational and career goals. It is assumed, therefore, that a value orientation toward religiosity will have been strongly developed by this time. This orientation may have been influenced by the value system transmitted by the home or the school or a combination of the two.

Newfoundland has a strong tradition of ecclesiastical dominance in the administration of education and students have been traditionally segregated during their public schooling along denominational lines and are still today (Fagan, 1974). However, many studies have shown that there is little or no difference in educational and occupational aspirations along denominational lines (see for example, Bordua, 1960; Greeley, 1964). In Newfoundland, Cooper (1976) examined the effects of denominational schooling on the belief of students and found that Newfoundland schools, in which "Religion" is a standard subject within the curriculum, did not produce more dedicated or conscientious Christians than American schools in which religious instruction is prohibited. Nor was there any substantial effect from type of religious schooling. In fact, Cooper (1976) stated:

> According to the respondents, religious instruction, where given, has usually been less than satisfactory, and was rated as the least important of factors in their religious development (p. 16).

This lends credence to our argument that religiosity is an exogenous variable. That is, religiosity is antecedent to and independent of the school experience and acts much as the social origins factors in influencing the ambition formation process.[1]

Thus, religiosity and the more traditional family background factors are the independent variables in the model to be examined. These are related to the student's program enrollment, self-concept of academic ability, educational

and occupational expectations. The effects of these factors are considered to be recursive.

Program Enrollment

In Newfoundland there are basically two streams in which a student can enroll--a university preparatory program or a general program. A student who is academically capable is expected to take the university preparatory program whether he anticipates a need for attending university or not. However, many studies have shown differences in program enrollment that are unrelated to the academic capabilities of the student.

One such factor is the socioeconomic status of the student's family. Breton (1972), Coleman (1968), Day (1975), Hollingshead (1949), and Porter et al. (1973) found that a greater percentage of students from higher socioeconomic statuses than from lower statuses were enrolled in university preparatory programs. The opposite was found to be true for those in the general program. Day (1975) postulated that these differences may be due to the differences in the prestige of the two programs. Sewell and Hauser (1975) ascribed the differences in school attainment and aspirations to higher educational levels to the fact that students from higher socioeconomic strata have had superior cognitive and motivational home environments. Such backgrounds would exert strong influences on those students coming from them to enroll in the university preparatory program. Coleman

(1968) maintained that lower-working class children were discouraged from entering college preparatory programs as did Porter et al. (1973), who argued that teachers were more likely to place lower class students in the general program. Day (1975), who worked on Newfoundland data, found that the lower the social class, the smaller the percentage of students enrolled in the academic program. Tilley (1975) also found significant relationships between socioeconomic status and program of study.

Relatively little research has been conducted relating family size to high school program enrollment. If the stand of the Newfoundland Royal Commission on Education and Youth (1967) that the capable students will enroll in the university preparatory program is accepted, program enrollment can be taken to be a proxy measure of the student's academic ability. From this the relationship between family size and program can be postulated. Zajonc (1976: 234), in studying the relationship between family configuration and intelligence, found that "intellectual performance increases with decreasing family size". That is, youths from smaller families are more likely to be academically capable than those from larger families. Anastasi (1958) also maintained that family size affected verbal and mental abilities of students in that students from smaller families have fewer problems in reading comprehension than students from larger families.

If program enrollment cannot be accepted as a proxy measure for academic achievement, the evidence still indicates

that there are agents at work in large families which hinder high school completion and continuing from high school to college (Blau & Duncan, 1967) and college graduation (Nelson & Simpkins, 1973). Coffin (1976) found that family size had an influence on program placement in Newfoundland high schools. She attributed this primarily to the family's financial situation and ability to actively support their children in post-secondary educational institutions. The evidence points to the conclusion that family size may be a determinant of program enrollment.

The nature of the effect of religiosity on program enrollment cannot be adequately hypothesized because of lack of research in this field. As a result no tentative conclusion can be formed as to the effect of religiosity on program enrollment and this study may be considered exploratory in this regard.

Self-Concept of Academic Ability

Self-concept of academic ability is seen as being a derivative of a larger theoretical construct, self-esteem, which is derived from symbolic interaction theory. Crandall (1973) defined self-esteem as "liking and respect for oneself which has some realistic basis". A decision concerning personal worth is presumably arrived at after a process of self-evaluation which takes place according to certain internalized criteria. However, these criteria typically reflect the individual's status in society since self-

attitudes are reflections of social values which are internalized through a process of socialization (Jacques & Chason, 1977). Thus, it will be argued that family background factors should have a great influence on the self-concept of academic ability of the students as should the past performance evidenced by high school program placement.

Self-concept of academic ability has been found to be an important intervening variable between the student's background and his educational aspirations (Porter, 1973). Blume (1973) found that self-concept is largely determined by the age of thirteen although much conflicting evidence exists as to the actual relationship between age, sex and self-concept (see for example, Bohan 1973, for further discussion). The argument here is that self-concept at adolescence is largely determined by a person's social origins. Porter (1973) found that the student's socioeconomic status was positively related to his self-concept of academic ability. Those students from a higher socioeconomic background had a twenty-two per cent better chance of having a high self-concept of academic ability. Porter also found that those students who had more highly educated parents had higher self-concepts. Parsons (1974) found that the lower the father's education, the lower the student's perceived ability to complete a university degree. In the Parsons study, students from larger families also saw themselves as less able to complete a university degree. This also lends credence to the argument that self-concept is positively related to social background.

How a student views himself is related to his treatment by significant others (Breton, 1972) and the preferential treatment given to middle and upper class students is well documented (see, for example, Havighurst, 1964).

Benson and Spilka (1973) disagreed with the findings of previous research which indicated that there is a negative correlation between self-concept variables and religious attitudes and involvement. Using Consistency Theory and Dissonance Theory as the underlying theoretical framework, they argued that self-esteem is positively related to God-loving images and maintain that beliefs vary with self-regarding attitudes. Lee and Clyde (1964), in their work on religiosity and anomie, found that high levels of religiosity, as defined by a five-point self-rating scale similar to the measure used in this study, help forestall feelings of anomie. They found, in fact,

> religiosity...a variable which has been largely ignored in previous anomie theory and research, has greater predictive power than does socioeconomic status (p. 41).

Lee and Clyde also argued, as did Merton (1968), that lower socioeconomic status persons are particularly subject to the strains of anomie because of the cultural emphasis on success from which lower socioeconomic status persons are effectively restricted by lack of opportunities. Thus, strong feelings of religiosity may serve to counteract the disadvantages of lower socioeconomic status and family size while strengthening the benefits accrued to those from a more advantageous home

background in formulating positive self-concepts. To this end, religiosity, as defined here, is hypothesized to have a positive relationship with self-concept of academic ability.

Breton (1972) noted that a student's experiences in school will affect his attitudes. A student's placement in a general program effectively outlines what his abilities are considered to be and, as such, surely influence his opinion of himself since he has been placed in a position where university training is virtually inaccessible to him. Tilley's (1975) results support this contention as he found that the program of study was highly correlated with a student's self-concept of academic ability both for males and for females.

Educational Expectations

Throughout the literature socioeconomic status is considered an important determinant of expectations. Stevenson (1976) found that, after controlling for academic ability, students from higher socioeconomic family backgrounds plan to obtain more schooling than students from lower socio-economic backgrounds. In fact, his findings showed that the highest ability students from the lowest socioeconomic group had occupational and educational plans which were equivalent to the plans of the lowest achievers in the highest status groups and that more of the latter planned college attendance regardless of high school achievement. Yet, high ability achievers from poor backgrounds rarely had high aspirations.

Sewell and Hauser (1975) also noted that socioeconomic status is an important determinant of plans to attend college even when intelligence is controlled. They found that both the direct and the indirect effects of socioeconomic background are greater for girls than for boys. Stevenson (1976) reported the same finding. After differences in ability are eliminated, students from more favorable socioeconomic environments plan more schooling. Porter (1973) also found that socioeconomic status was related directly to post-secondary plans. Blau and Duncan (1967) found that educational attainment was greatly affected by father's occupational and educational status. Parsons (1974) found that the lower the class of father's occupation, the larger the number of students planning jobs or vocational training and the higher the status, the greater the percentage of students planning to attend university. This report also found that those students who actually attended Memorial University were generally from higher socioeconomic backgrounds and a considerably smaller number were from the lower working classes. The type of further education aspired to was delineated along class lines. The lower socioeconomic status students tended to take teacher education degree programs while the others preferred the Arts, Sciences and Professional courses. Contrary to the other research in this field, Bulcock (1975, 1977) and Bulcock and Lee (1976) found that the effects of a composite measure socioeconomic status on educational aspirations were modest in comparison with other factors.

Since methods of analyses similar to those used by Bulcock (1975) are used in this study, the role of the socioeconomic status of the student's family in determining educational expectations will be reexamined.

A clear picture emerges from the literature as to the effects of family size on expectations. Nelson and Simpkins (1973) report that previous studies have established that children from large families are less likely to plan on college than children from small families. Breton (1972) found that the larger the size of the family, the lower the proportion of both male and female students who planned to attend post-secondary institutions. This relationship was also found by Porter (1973). Blau and Duncan (1967) found that a large number of siblings is a hindrance to both completing high school and continuing on to college. Parsons and Parsons (1976) found that when father's education is low, the family size is likely to be large. From these families the proportion of children going into the job market instead of pursuing higher education is usually high, and similarly they attach considerable importance to relatively short periods of post-secondary school training. They found that a student from a family of eight children had roughly half the chance of a student from a small family (one to three children) of entering university-type post-secondary institutions. Those who did go on tended to attend institutions which were the least expensive for them. Students from large families generally did not attend

university, but of those who did, the largest percentage registered in teacher training or nursing programs (Parsons & Parsons, 1976). Students from small families had the largest percentage planning to attend university. The Parsons and Parsons (1976) study did not place controls on other key variables. Bulcock (1975), however, using regression analysis on the same data set used by Parsons and Parsons found that family size--though statistically significant--is in a substantive sense of negligible importance when considered simultaneously with other variables. That is, when other key variables, such as socioeconomic status and ability, are controlled the impact of family size is substantially reduced.

The joint effect of family size and socioeconomic status is also demonstrated in the literature. Breton (1972) found the effects of family size are reduced when socio-economic background is controlled. Poole and Kuhn (1973) showed that for middle-class children, a large family was little impediment to educational attainment but that for children from lower-class families, a small family was essential. That is, socioeconomic status and family size interact. Thus, socioeconomic status is expected to have a larger effect on expectations than family size and these effects are expected to be distinct.

As previously noted, the literature on the effect of religiosity on expectations is virtually non-existent and must be inferred from the literature relating to religious

denominational variation. Nelson and Simpkins (1973) postulated that religion may affect intervening variables rather than the outcome (aspirations) itself--in particular, family size differentials. The purpose of this study is not to relate religion to family size differentials but religiosity to the intervening variables of program enrollment and self-concept as well as to expectations. The exploratory nature of this study with respect to religiosity must be reiterated, but there does seem to be some evidence from Nelson and Simpkins findings to merit such causality. They found that differences in aspirations between Protestants and Catholics were probably related to basic aspects of socialization. For example, parental encouragement in families of all sizes was the same for white collar students, but for blue collar students a difference did exist between Protestant and Catholic families in that children in small Protestant families received more parental encouragement.

Havighurst et al. (1964) noted that all of the children who had been considered maladjusted in elementary school, but who had entered college despite this handicap, judged religion to be an important influence in their lives. The conclusion drawn from this is that religiosity may have an ameliorating effect on those students from disadvantageous backgrounds and may serve to increase their expectations.

Program enrollment virtually determines, by its very nature, whether a student will, or will not, be able to obtain a university education. Parsons (1974), Breton (1972),

and Tilley (1975) found significant positive relationships between the student's program enrollment and his post-secondary plans. As such, it is postulated that program enrollment should have a direct effect upon a student's expectations.

A number of studies in recent years have addressed themselves to the relationship between self-concept and expectations. Parsons (1974) found that the higher the student's self-concepts, the higher their aspirations. Eighty per cent of the students with high self-concept of academic ability aimed for upper-middle class occupations while only forty-nine per cent of the students with low self-concepts held such aspirations. The probable reason for this may be that the road to such goals is seen obtainable only through increased education. Porter (1973) and Tilley (1975) found positive relationships between self-concept of academic ability and post-secondary plans. The evidence suggests that self-concept of academic ability has a definite positive effect on aspirations.

Occupational Expectations

Stevenson (1976) pointed out that those students who aspire to the more financially rewarding occupations plan to stay in school longer and see more education as the criterion to qualify them for these higher status roles. Students of relatively high ability tend to be attracted to the high paying, more prestige oriented, professional

vocations. These students also tend, on the average, to be from higher socioeconomic backgrounds. The lower prestige occupations, on the other hand, tend to attract lower ability students from lower socioeconomic backgrounds. Thus, it is argued that the factors affecting occupational expectations should be similar to those affecting educational expectations. It will in fact be argued that educational and occupational expectations can be considered to be two components of a more general concept called ambition.

Theoretical Model of Ambition Formation

The typical models of ambition formation have three components: family background factors, the manifestations of school experiences, and ambition itself. The relationships are presented in Figure 1.

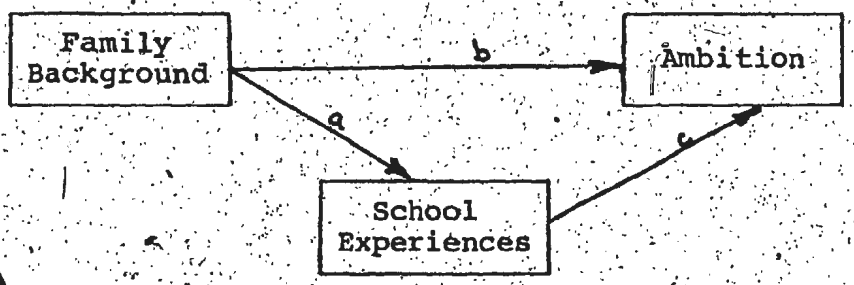

FIGURE 1. The Basic Model

Three equations result from such a causal ordering. School experience is postulated to be a function of family background. Cognitive skills, attitudes and value orientations originate from the different heredity and environment provided by each family. The significance of these differences on school experiences has been demonstrated in the vast literature on the subject. This relationship is demonstrated by path "a" in Figure 1.

Ambition is presented as a function of both family background (path "b") and school experience (path "c"). Family background has been shown to have great influence on the ambition of youth in many studies. Those youths from more advantageous family backgrounds have higher ambitions which may be attributed to the superior environments provided for them and the advantages in schooling and job opportunities that their parents can provide. Sewell and Hauser (1975) believed that there is a direct transfer of status, high or low, from parents to children irrespective of their abilities and educational achievements. School experiences (path "c") have also been shown to have effects on ambition formation. Some maintain that this effect is greater than that of the background in that each student can avail himself of knowledge, physical activity and social interaction provided in the school situation. There is debate as to which of these factors is more significant and whether the effects of family background on ambition are merely mediated by the school experience. The evidence indicates, however, that both of

these factors are necessary in a discussion of ambition formation.

These factors can be decomposed into numerous components. Figure 2 presents the disaggregated factors that arise from the review of the literature pertinent to this study. It is virtually impossible to arrive at an exact measure of family background and so socioeconomic status and family size are taken to be proxy measures for the environment provided in the home. Educational and occupational statuses of the parents are generally taken to comprise one measure of socioeconomic status. It is argued that those from the higher occupational and educational statuses will provide a more advantageous environment for the child's development. Family size will affect the amount and type of interaction between parent and child and it is assumed that a smaller family is more beneficial in the sense that smaller families allow for more interaction with adults and thus provide home environments conducive to the development of verbal and cognitive skills.

The school experience factors to be examined are: program enrollment, which is purportedly determined by academic ability, and self-concept of academic ability. The ambition factors are educational and occupational expectations.

In this diagram, straight arrows link cause and effect. The curved arrows indicate unanalysed relationships. The residuals, or variation unexplained, are indicated by the arrows entering from the periphery.

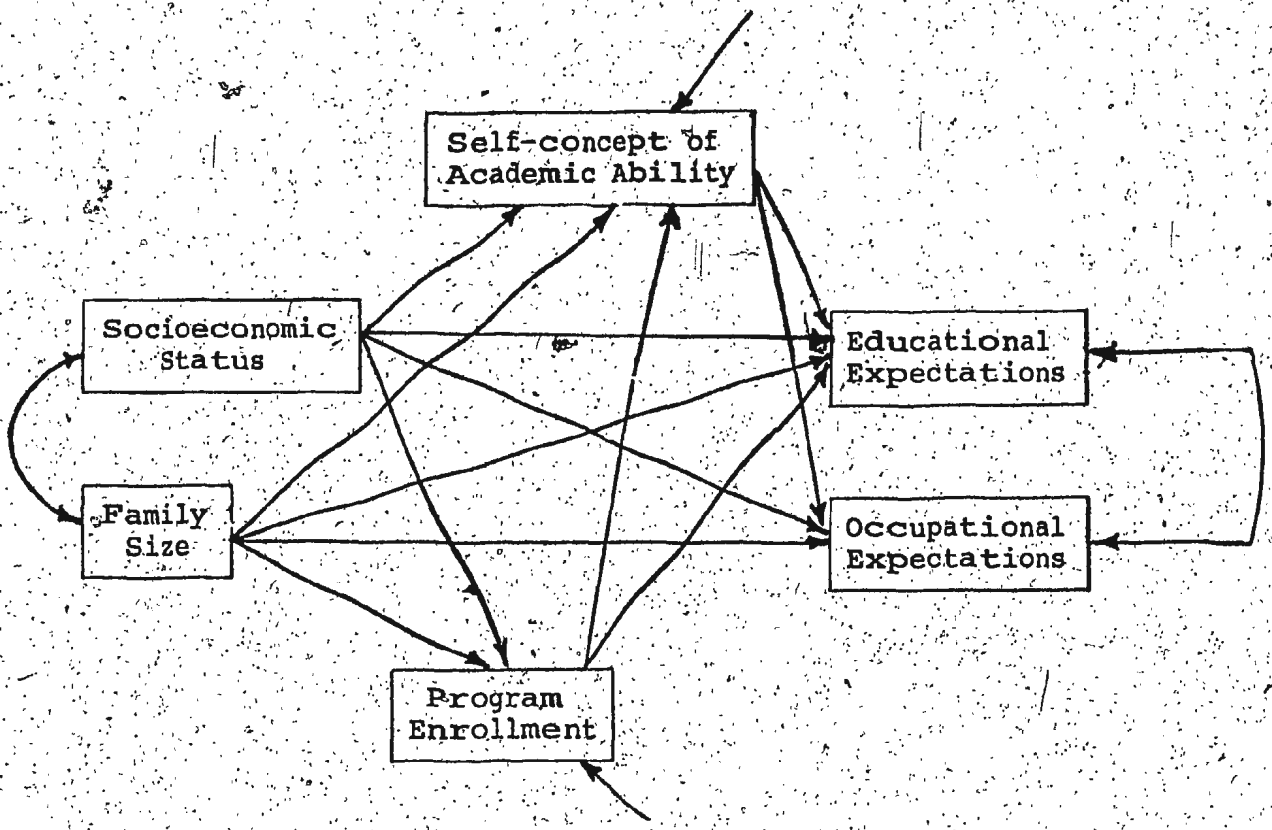

FIGURE 2. The Disaggregated Model

The addition of the previously untested variable, religiosity, leads us to the model presented in Figure 3. It is assumed that religiosity is a value orientation that is developed in the home environment. As such, it is taken to be exogenous in the present model. Socioeconomic status and family size are also exogenous variables. Here, educational and occupational expectations are taken to be separate outcomes and will be examined as such. This model is to be examined not only for the total group, but also for males and for females separately, a matter which will be taken up next.

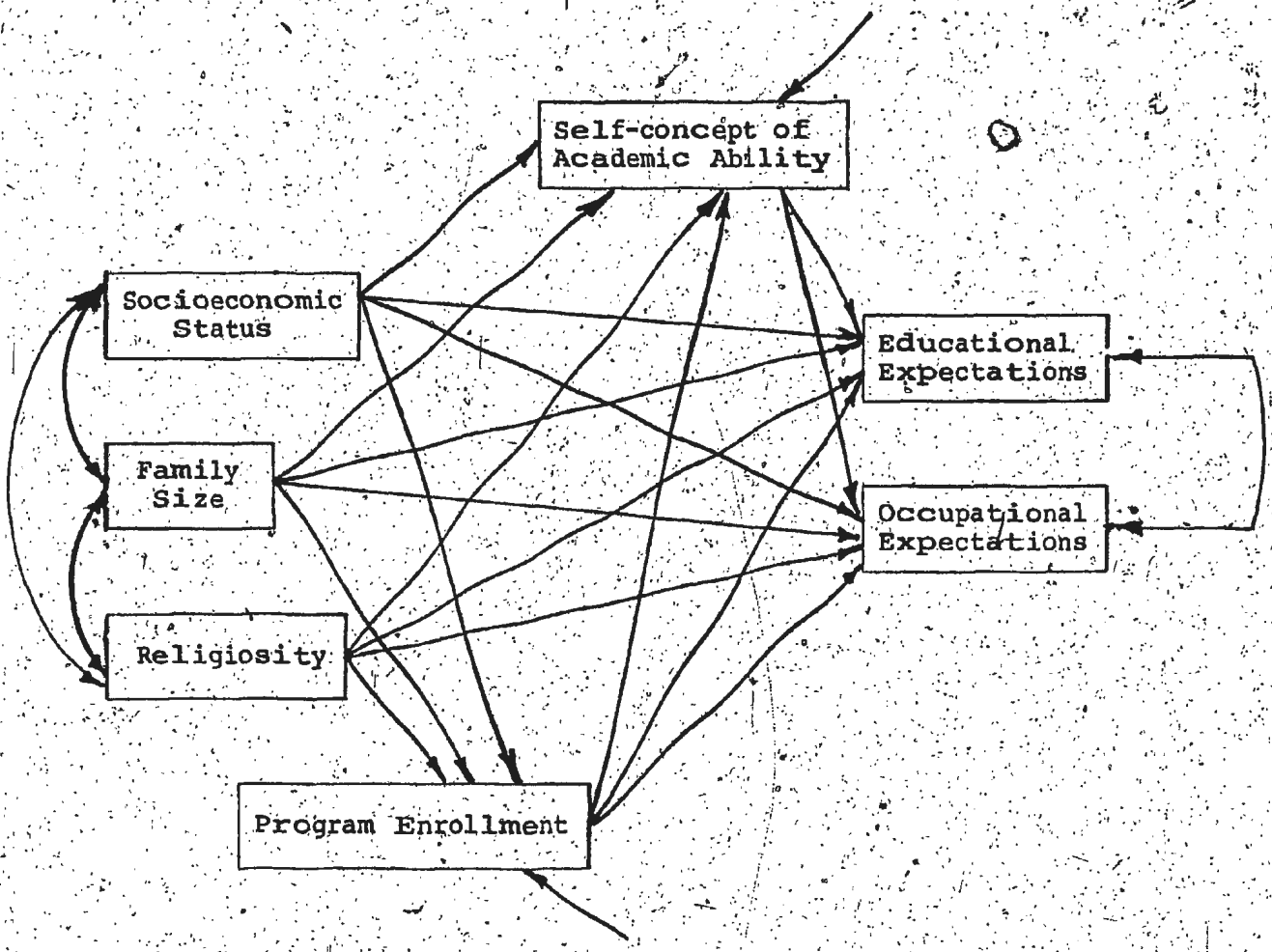

FIGURE 3. Extended Model I (Illustrating Inclusion of Religiosity Variable)

As Spaeth (1977) notes, the research on the socio-economic achievement process among females lags behind the rather extensive research conducted on males. Since occupational and educational plans are a necessary pre-requisite in any status attainment model, it is clear that more information on sex differences is necessary. It has been noted that among high school students, female advantages such as higher grades do not counteract the direct effects of sex (Alexander & Eckland, 1974). Female students are at

a disadvantage when educational achievement pertains to the probability of entering college (Sewell, 1971). Spaeth (1977) has suggested that the expected frequency of interruptions in the early career paths of females may lead to a lowering of their aspirations. That is, "the instability and uncertainty in occupational plans and the lesser returns to schooling could themselves become deterrents to higher aspirations". The status attainment process has been shown to be different for females and males on a number of counts: First, women were less likely to aim for high goals than were men. Secondly, women's occupational expectations have been shown to be less stable than men's. Thirdly, women are less likely to partake in the schooling appropriate to their occupational plans and realize their occupational expectations (Spaeth, 1977).

Clearly, women are being socialized differently from men since it has been shown that more females graduate from high school with better grades. On these grounds it would seem that the sex effect should be acting in favour of female students rather than the reverse. Much more research is needed in order to facilitate an understanding of the differing ambition formation process. To this end, the current study will examine the models for males and females with the addition of religiosity separately so that a comparison of the processes may be made.

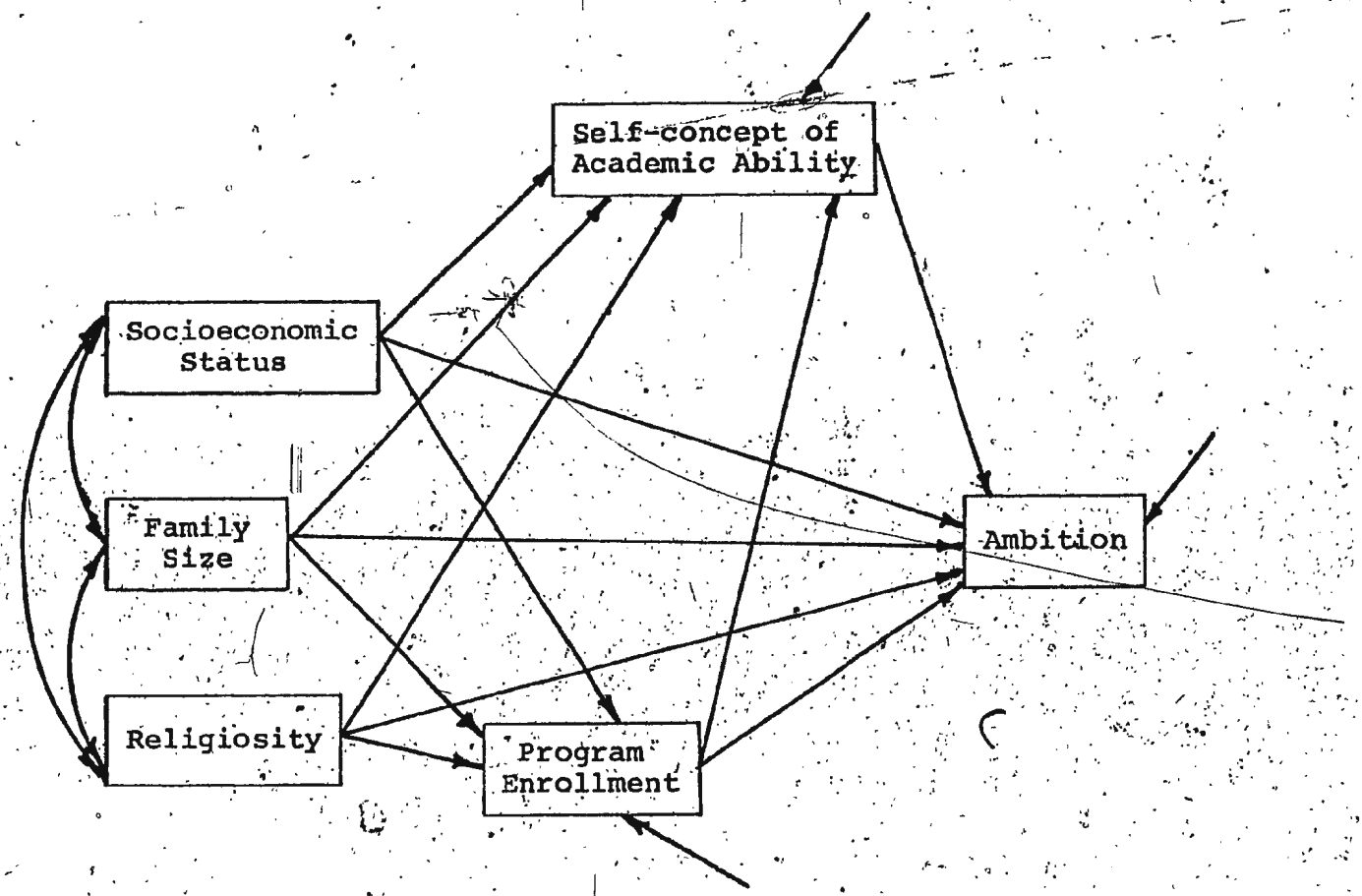

FIGURE 4. Extended Model II (Illustrating the Single Outcome Model - Ambition)

In Extended Model II, educational and occupational expectations have been combined to form an aggregate measure called Ambition.

[1] A limitation to the causal model developed must be noted. Religiosity is assumed to be a behavior primarily resulting from socializing experiences and, as such, is considered relatively enduring. The possibility that youth in their early teen years may experience religious conversion or a radical shift in religious orientation has not been taken into account by this model. It was felt, however, that such behaviour is relatively uncommon among youth attending the Integrated and Roman Catholic schools in Newfoundland.

CHAPTER 3

THE SAMPLE AND THE MEASUREMENT OF THE VARIABLES

The Sample

This study is based on a secondary analysis of data gathered by Holloway (1975). Holloway's purpose was to document the presence or absence of a distinct student subculture in selected Newfoundland high schools. Questionnaires were distributed to 796 grade 10 and 11 students in five selected schools. These schools were specifically chosen to allow for the inclusion of certain typical characteristics of high schools in Newfoundland. Two of the schools came under the jurisdiction of the Integrated (Combined Protestant) School Board and three under the Roman Catholic School Board Authority. Three schools were co-educational and one school was all-boy and the last all-girl. Three of the schools selected were in a community of 25,000, one in a small rural community and one in a small town near a large city. More detailed information about the selected schools may be found in Holloway (1975).

Measurement of the Variables

Socioeconomic status:

The variable socioeconomic status was compiled by summing three weighted commonly-used indicators of the status of the respondent's family: father's occupation, father's

education and mother's education. These are assumed to be proxy measures of the environment provided by the family which acts as a socializing agent, providing the youth with certain cognitive abilities and motivational attitudes. The following questions were used to measure socioeconomic status:

Q. (48) How far did your father go in school?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Grade 8 or less	7
2	Grade 9	6
3	Grade 10	5
4	Grade 11	4
5	Some university	3
6	Graduated from university	1
7	Other schooling (e.g., Vocational School, College of Fisheries, etc.)	2

Q. (49) How far did your mother go in school?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Grade 8 or less	7
2	Grade 9	6
3	Grade 10	5
4	Grade 11	4
5	Some university	3
6	Graduated from university	1
7	Other schooling (e.g., Vocational School, Nursing School, etc.)	2

Q. (71) What is your father's occupation?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Owner of large business (employs 3 or more people)	1
2	Owner of small business (employs less than 3 people)	3
3	Professional, technical (e.g., lawyer, doctor, teacher, etc.)	2
4	Clerical (clerk, office worker, etc.)	4
5	Service and recreation (policeman, cook, barber, etc.)	5
6	Transport and communication (bus driver, radio announcer, etc.)	5
7	Fisherman	6
8	Farmer or farm worker	6
9	Logger, lumberman, miner	6
10	Craftsman (carpenter, plumber, electrician, etc.)	3
11	Labourer	7
12	Unemployed	8

To determine item weights, the principal component method of factor analysis was used (see, for example, Nie et al., 1970). The intercorrelations among the variables used for the factor analysis are presented in Table 1.

Table 2 presents the results from the factor analysis socioeconomic status variables.

TABLE 1

Correlation Matrix of Socioeconomic Status Variables

	Q. 48	Q. 49	Q. 71	Mean	Standard Deviation	Missing Cases
Q. 48	1.000			5.222	1.887	13 (1.6%)
Q. 49	.472	1.000		4.834	1.789	19 (2.4%)
Q. 71	.388	.294	1.000	4.410	2.054	45 (6.9%)

TABLE 2

Principal Component Analysis: Socioeconomic Status Variables

	Factor Matrix	Communality (h^2)	Factor Score
Q. 48	.787	.619	.588
Q. 49	.600	.360	.267
Q. 71	.492	.242	.185
Eigenvalue	1.221		

Socioeconomic status was computed by the following linear equation:

$$\text{Socioeconomic status} = Q\text{-}48 * (.588) + Q\text{-}49 * (.267) + Q\text{-}71 * (.185)$$

Two reliability coefficients were computed. Cronback's coefficient alpha yielded a reliability coefficient of .652 (Cronback, 1951). Omega yielded a reliability of .713 (Heise & Bohrnstedt, 1970). Although alpha is the more popular measure of reliability, it is in actuality a measure of the lower bound of reliability. Omega, however, is exactly equal to the reliability of the composite since the h_i^2 are known (Heise & Bohrnstedt, 1970: 116-117). Both measures have been included since there is a greater familiarity with the measure alpha even though omega is the more accurate measure.

Table 3 presents the descriptive statistics for the Socioeconomic Status Scale.

TABLE 3

Descriptive Statistics for the Socioeconomic Scale

Mean	5.191	Std. Dev.	1.594
Kurtosis	-.360	Skewness	-.647
Std. Error	.059	Missing Obs.	77 (9.7%)

Family size:

The number of brothers and sisters reported by the respondent was taken as the measure of family size. This information was obtained from the response to the following question:

Q. (55) How many brothers and sisters do you have?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	None	9
2	One	8
3	Two	7
4	Three	6
5	Four	5
6	Five	4
7	Six	3
8	Seven	2
9	Eight or more	1

A characteristic of Newfoundland is the large average family size. Newfoundland has traditionally had the largest average number of children per family of any province in Canada (Statistics Canada, 1973). As a result of this phenomenon the standard questionnaire format determining family size results in skewed distributions presenting problems for the assumptions of normality required for the method of analysis to be employed. However, in order that the most possible information be

retained for the best generalizability the data was left unwindsorized.

The descriptive statistics for the variable Family Size are presented in Table 4.

TABLE 4

Descriptive Statistics for Family Size

Mean	5.615	Std. Dev.	2.369
Kurtosis	-1.190	Skewness	.073
Std. Error	.084	Missing Obs.	6 (0.8%)

Religiosity:

The following single-item, four-point question was the means of measuring self-perceived strength of religious belief.

Q. (68) Do you consider yourself

Original Code	Response Ordering on Questionnaire
1	Deeply religious
2	Moderately religious
3	Largely indifferent to religion
4	Basically opposed to religion

The descriptive statistics for Religiosity are presented in Table 5.

TABLE 5

Descriptive Statistics for Religiosity

Mean	2.247	Std. Dev.	.618
Kurtosis	1.726	Skewness	1.207
Std. Error	.022	Missing Obs.	10 (1.3%)

Program enrollment:

A dichotomous variable was used to measure program enrollment:

Q. (25) Which courses are you taking now?

Original Code	Response Ordering on Questionnaire
1	University entrance
2	General

There were 502 students enrolled in the University Entrance program and 283 enrolled in the General program. Data was missing for eleven students, which is 1.4 per cent of the sample.

Self-concept of academic ability:

A linear combination of five questions taken from Brookover's scale to measure self-concept was used to measure this variable. The following questions were used:

Q. (57) Where do you think you stand in terms of your academic ability and performance compared with that of your close friends?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Much lower than average	5
2	Slightly lower than average	4
3	Average	3
4	Slightly better than average	2
5	Much better than average	1

Q. (58) Where do you think you stand in terms of your academic ability and performance compared with that of the other members of your class?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Much lower than average	5
2	Slightly lower than average	4
3	Average	3
4	Slightly better than average	2
5	Much better than average	1

Q. (59) What do you think of your ability to complete a university degree?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Much lower than average	5
2	Slightly lower than average	4
3	Average	3
4	Slightly better than average	2
5	Much better than average	1

Q. (60) What do you think of the quality of your school work at present?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Much lower than average	5
2	Slightly lower than average	4
3	Average	3
4	Slightly better than average	2
5	Much better than average	1

Q. (61) What kind of grades do you think you are capable of getting?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Much lower than average	5
2	Slightly lower than average	4
3	Average	3
4	Slightly better than average	2
5	Much better than average	1

Item weights were determined by the principal component method of factor analysis, which was also used in determining socioeconomic status. The correlation matrix of the variables used for the factor analysis is presented in Table 6.

Table 7 presents the results from the factor analysis.

TABLE 6

Correlation Matrix of Self-concept of Academic Ability Variables

	Q. 57	Q. 58	Q. 59	Q. 60	Q. 61	Mean	Standard Deviation	Missing Cases
Q. 57	1.000					2.958	.799	13 (1.6%)
Q. 58	.558	1.000				3.000	.872	8 (1.0%)
Q. 59	.486	.491	1.000			3.470	1.025	11 (1.4%)
Q. 60	.485	.523	.320	1.000		3.055	.863	3 (0.4%)
Q. 61	.428	.397	.490	.315	1.000	2.157	.905	6 (0.8%)

TABLE 7

Principal Component Analysis:
Self-concept of Academic Ability

	Factor Matrix	Communality (h^2)	Factor Score
Q. 57	.749	.561	.314
Q. 58	.756	.572	.326
Q. 59	.660	.436	.215
Q. 60	.604	.364	.159
Q. 61	.587	.344	.168
Eigenvalue	2.278		

The following equation was used to compute Self-concept of Academic Ability:

Self-concept of Academic Ability = Q-57 * (.314) + Q-58 * (.326) + Q-59 * (.215) + Q-60 * (.159) + Q-61 * (.168)

Once again two reliability coefficients were computed. Cronback's coefficient alpha yielded a reliability of .803 while omega resulted in a reliability coefficient of .815.

Table 8 presents the descriptive statistics for the Self-concept of Academic Ability Scale.

TABLE 8

Descriptive Statistics for the Self-concept of Academic Ability Scale

Mean	3.499	Std. Dev.	.795
Kurtosis	.206	Skewness	-.061
Std. Error	.029	Missing Obs.	27 (3.3%)

Educational expectations:

Educational expectations was computed from the information obtained from the following question.

Q. (42) How many years of schooling do you expect to complete after high school?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	None	5
2	One	4
3	Two	3
4	Three	2
5	Four or more	1

Descriptive Statistics are presented in Table 9.

TABLE 9

Descriptive Statistics for
Educational Expectations

Mean	2.836	Std. Dev.	1.490
Kurtosis	-1.459	Skewness	.053
Std. Error	.053	Missing Obs.	11 (1.4%)

Occupational expectations:

Occupational expectations were determined by the responses to the following question:

Q. (72) Which of the following occupations do you expect to enter upon completion of schooling?

Original Code	Response Ordering on Questionnaire	Re-order Code
1	Owner of large business (employs three or more people)	1
2	Owner of small business (employs less than three people)	2
3	Professional, technical (e.g., lawyer, doctor, teacher, etc.).	2
4	Clerical (clerk, office worker, etc.)	4
5	Service and recreation (policeman, cook, barber, etc.)	5
6	Transport and communication (bus driver, radio announcer, etc.)	5
7	Fisherman	6
8	Farmer or farm worker	6

Original Code	Response Ordering on Questionnaire	Re-order Code
9	Logger, lumberman, miner	6
10	Craftsman (carpenter, plumber, electrician, etc.)	3
11	Labourer	6
12	Unemployed	6

The responses were coded into six categories which the author felt adequately reflected the prestige of the occupational categories in Newfoundland. This ordering also facilitated a closer approximation to a normal distribution which is advantageous for the method of analysis employed.

Table 10 presents the descriptive statistics for the variable Occupational Expectations.

TABLE 10

Descriptive Statistics for Occupational Expectations

Mean	3.063	Std. Dev.	1.315
Kurtosis	-.567	Skewness	.688
Std. Error	.048	Missing Obs.	30 (3.8%)

Ambition:

The Ambition scale was constructed by combining the variables Educational Expectations and Occupational Expec-

tations. This was accomplished by a straight addition of the two re-ordered variables. That is, the following equation was used to compute Ambition:

Ambition = Q-42 + Q-72

The descriptive statistics of Ambition are presented in Table 11.

TABLE 11

Descriptive Statistics for Ambition

Mean	5.891	Std. Dev.	2.397
Kurtosis	-1.157	Skewness	.238
Std. Error	.087	Missing Obs.	36 (4.8%)

CHAPTER 4

THE RESULTS

Pearson product-moment correlations formed the basis for the analysis employed. When list-wise deletion was used, the case base dropped to 663 and it was felt that by using correlation coefficients calculated by pair-wise deletion, more complete information would be retained. Correlation coefficients were calculated both using pair-wise and list-wise deletion and very little difference was found; the difference ranged from .0001 to .0175. The zero-order correlation coefficients and their case bases for the total sample are presented in Table 12A along with the means and standard deviations. The same information for boys and girls separately is presented in Tables 12B and 12C, respectively.

Of the three main dependent variables in this study (educational expectations, occupational expectations, and ambition), educational expectations seems to be associated most highly with the designated independent variables. This pattern holds in the subsamples for both boys and girls.

It may be noted that most of the variables have positive relationships with each other. The major exception is family size, which has a negative association with all the other variables except for religiosity. Broadly, the indication would be that students from large families may

TABLE 12A

Correlations, Means, Standard Deviations, and Case Base in the Total Model*[1]

Variables	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	$\bar{X}$	SD	N
X_1 SES	719	714	711	710	699	709	703	696	5.191	1.594	719
X_2 FAMS	-.243	790	782	779	765	780	760	753	5.615	2.369	790
X_3 REL	-.013	.074	786	775	761	776	759	752	2.247	.618	786
X_4 PROG	.288	-.214	.049	785	759	774	755	747	1.361	.481	785
X_5 SCAB	.277	-.103	.170	.235	769	759	744	737	3.499	.795	769
X_6 EDEX	.424	-.204	.094	.455	.454	785	758	-	2.836	1.49	785
X_7 OCCEX	.234	-.138	.071	.236	.311	.464	766	-	3.063	1.315	766
X_8 AMBIT	.389	-.199	.082	.403	.445	.874	.836	758	5.891	2.397	758

*The number of cases used for the correlation are above the diagonal. The actual correlation coefficients are below the diagonal.

[1]SES = Socioeconomic Status, FAMS = Family Size, REL = Religiosity, PROG = Program Enrollment, SCAB = Self-concept of Academic Ability, EDEX = Educational Expectations, OCCEX = Occupational Expectations, AMBIT = Ambition.

TABLE 12B

Correlations, Means, Standard Deviations, and Case Base in the Model for Boys*

Variables		X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	$\bar{X}$	SD	N
X_1	SES	352	350	344	349	342	345	338	334	5.110	1.61	352
X_2	FAMS	-.265	388	380	383	373	382	364	361	5.534	2.385	388
X_3	REL	-.036	+.098	381	376	367	375	360	357	2.349	.686	381
X_4	PROG	.271	-.213	.007	385	369	378	361	357	1.369	.483	385
X_5	SCAB	.276	-.033	.166	.224	374	368	355	352	3.562	.848	374
X_6	EDEX	.445	-.219	.075	.479	.428	383	362	-	2.789	1.538	383
X_7	OCCEX	.204	-.147	.001	.175	.268	.344	366	-	3.085	1.377	366
X_8	AMBIT	.405	-.224	.034	.394	.420	-	-	362	5.857	2.388	362

*The number of cases on which the correlation is based is above the diagonal and the actual correlations themselves are below it.

TABLE 12C

Correlations, Means, Standard Deviations and Case Base in the Model for Girls*

Variables		X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	$\bar{X}$	SD_∇	N
X_1	SES	366	363	366	360	356	363	364	361	5.265	1.577	366
X_2	FAMS	-.220	401	401	395	391	397	395	391	5.693	2.357	401
X_3	REL	.029	+.037	404	398	393	400	398	394	2.151	.531	404
X_4	PROG	.310	-.217	.095	399	389	395	393	389	1.353	.479	399
X_5	SCAB	.289	-.188	.155	.245	394	390	388	384	3.441	.739	394
X_6	EDEX	.401	-.187	.136	.432	.494	401	395	-	2.880	1.444	401
X_7	OCCEX	.266	-.132	.158	.300	.359	.597	399	-	3.040	1.258	399
X_8	AMBIT	.373	-.177	.148	.413	.477	-	-	395	5.919	2.410	395

*The number of cases on which the correlation is based is above the diagonal and the actual correlations themselves are below it.

tend to be slightly disadvantaged in terms of the dependent variables.

Because of the magnitude of the correlation coefficient between religiosity and family size, it cannot be said that a strong relationship exists between the two. There is a distinctive relationship between them, however, since family size has a negative association with all other variables but religiosity. Tentatively, it might be said that students from larger families consider themselves to be slightly more religious than students from smaller families although this would require additional testing.

A comparison of the correlation coefficients among the measured variables for boys and girls shows that they are largely similar in size and direction. There are, however, three notable exceptions. The largest difference is between the correlations on Educational Expectations and Occupational Expectations. Although there is a strong correlation in both cases, it is much larger in the case of the girls. Religiosity seems to have very little correlation with educational expectations, occupational expectations and ambition for the boys; however, there is a weak relationship for girls. That is, girls who consider themselves to have stronger religious beliefs tend to have slightly more ambition. Thus it can be seen that there is a statistical interaction between sex and religiosity. Family size is another variable that seems to have a more powerful influence on girls than on boys.

Family size has a negligible correlation with educational expectations for boys but has a slight negative correlation for girls. On the other hand, family size has a stronger association with occupational expectations for boys than for girls.

Regression analysis was run on the correlation coefficients to determine the standardized beta weights to be employed in path analysis. Path analysis is an extension of regression analysis which attempts to specify a closed system of variables arranged so as to indicate a causal relationship between the variables. Each variable is determined completely by its specified causes and a residual variable. The path coefficients are typically presented as standardized partial regression coefficients. Residuals are error terms which account for the variance unexplained by the specified causes at a given variable (Wright, 1934: 161). Table 13A presents the structural coefficients for the fully-identified Model 1, where educational expectations and occupational expectations are considered as separate outcomes for the entire sample. Tables 13B and 13C present these outcomes for boys and girls, respectively.

It can be observed that the dependent variable which is best predicted in this model is educational expectations. Approximately 40 per cent of the variance is explained by the antecedent variables. Religiosity and family size have the least influence in determining ambition-formation. Overall, this model seems to be a more adequate explanation

TABLE 13A

Structural Coefficients for the Full-identified Model 1 - Total Group
(I) Regression Coefficients, (II) Path Coefficients, (III) Standard Error

INDEPENDENT VARIABLES		DEPENDENT VARIABLES X_4 PROG			X_5 SCAB			X_6 EDEX			X_7 OCCEX		
		I	II	III	I	II	III	I	II	III	I	II	III
X_1	SES	.075	.250	.011	.114	.228	.019	.225	.241	.030	.096	.116	.030
X_2	FAMS	-.032	-.158	-.007	-.009	-.026	-.012	-.033**	-.053**	-.020	.033**	-.060**	-.019
X_3	REL	.050**	.064**	.023	.216	.168	.046	.084	.035	.073	.065	.030	.072
X_4	PROG				.257	.155	.062	.932	.300	.099	.363	.133	.097
X_5	SCAB							.573	.306	.060	.391	.237	.058
RESIDUAL			.944			.932			.780			.926	
REGRESSION CONSTANT			.677			2.024			-1.978			.372	
100 R^2			10.913			13.098			39.165			14.242	

Underlined coefficients are not significant.
**Significant at .025 level.
All other coefficients are significant at the .001 level.

TABLE 13B

Structural Coefficients for the Fully-identified Model 1 - Boys Only

INDEPENDENT VARIABLES	DEPENDENT VARIABLES X_4 PROG			X_5 SCAB			X_6 EDEX			X_7 OCCEX		
	I	II	III	I	II	III	I	II	III	I	II	III
X_1 SES	.069	.231	.016	.132	.251	.028	.250	.262	.044	.081	.095	.049
X_2 FAMS	-.031	-.155	.011	+.019	+.053	.019	-.048**	-.075**	.029	-.055**	-.095**	.032
X_3 REL	.021	.030	.037	.208	.168	.063	.099	.044	.096	-.049	-.024	.106
X_4 PROG				.291	.166	.094	1.052	.331	.142	.223****	.078****	.158
X_5 SCAB							.494	.272	.082	.365	.225	.090
RESIDUAL		.951			.931			.768			.945	
REGRESSION CONSTANT		.791			2.103			-2.189			.874	
100 R^2		9.594			13.250			41.094			10.708	

Underlined coefficients are not significant.
****Significant at .10 level.
**Significant at .025 level.
All other coefficients are significant at the .001 level.

TABLE 13C

Structural Coefficients for the Full-identified Model 1 - Girls Only

INDEPENDENT VARIABLES		DEPENDENT VARIABLES											
		X_4 PROG			X_5 SCAB			X_6 EDEX			X_7 OCCEX		
		I	II	III	I	II	III	I	II	III	I	II	III
X_1	SES	.083	.272	.015	.101	.216	.025	.192	.209	.042	.101	.127	.042
X_2	FAMS	-.033	-.161	.010	-.036	-.115	.061	-.011	-.017	.027	-.010	-.019	.027
X_3	REL	.084**	.093**	.045	.194	.140	.069	.135*****	.050*****	116	.232*	.098*	.115
X_4	PROG				.216	.140	.082	.819	.271	.137	.483	.184	.136
X_5	SCAB							.696	.356	.088	.440	.259	.088
RESIDUAL			.934			.927			.783			.894	
REGRESSION CONSTANT			.553			1.992			-1.981			-.218	
100 R^2			12.810			13.985			38.714			19.992	

Underlined coefficients are not significant.
*****Significant at .25 level.
**Significant at .025 level.
*Significant at .005 level.
All other coefficients are significant at the .001 level.

of the factors which affect girls more than boys.

Next an attempt was made to "trim" the model by deleting those paths from the model where the regression coefficients were not at least twice their standard errors. The regressions were then run over again retaining only those independent variables found to be statistically and substantively significant (Duncan, 1966). The new beta weights resulting from the process of deleting non-significant paths are presented in Figures 5A, 5B, and 5C.

Figure 5A shows the recalculated coefficients for the total group, Figure 5B shows the coefficients for boys and Figure 5C shows the coefficients for girls.

The revised models in Figures 5A, 5B, and 5C show the statistically and substantively significant causal relationships. Once again it is noted that the ordering of variables presents a more complete picture of ambition formation for girls than for boys. Socioeconomic status emerges as the most influential of the exogenous variables for both boys and girls in that it influences the greatest number of endogenous variables.

The accuracy of this method of model-trimming may be assessed by examining and comparing the observed correlations and correlations calculated from the deleted models. Since regression and path analysis are based on correlation coefficients, the more accurately the reduced model is specified, the smaller will be the difference between the original correlation coefficient and that recalculated

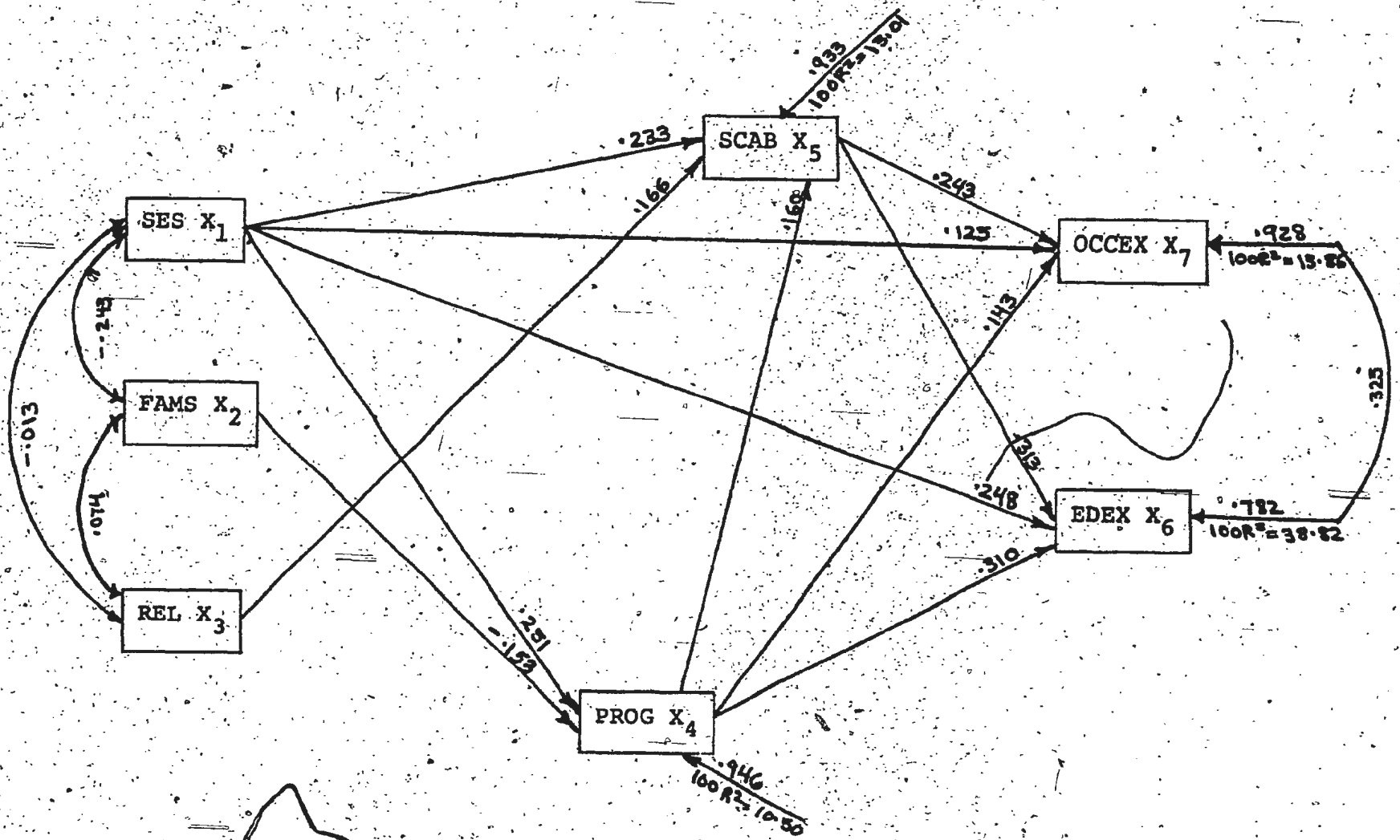

FIGURE 5A. Path Coefficients in the "Trimmed" Model: Total Group

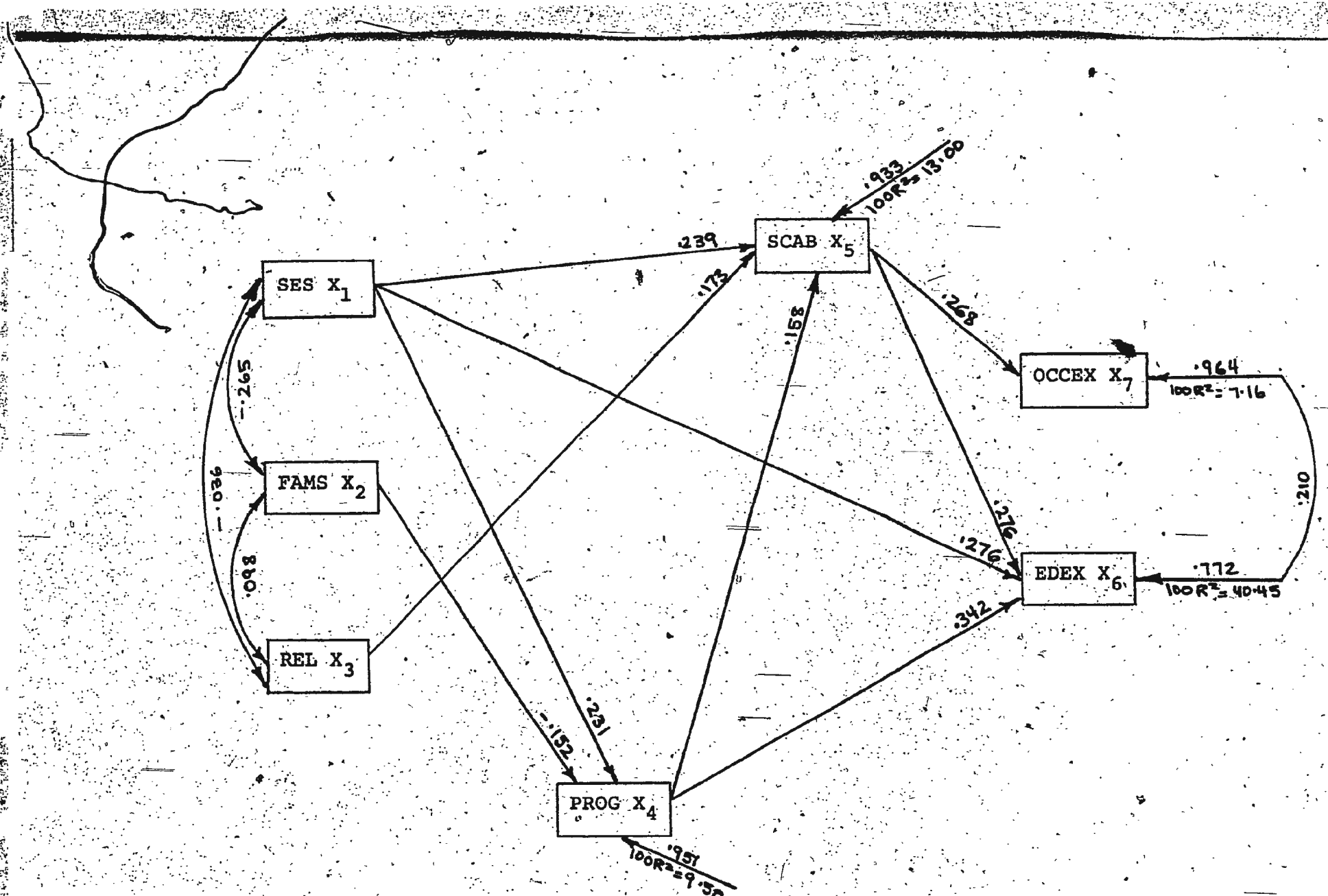

FIGURE 5B. Path Coefficients in the "Trimmed" Model: Boys Only

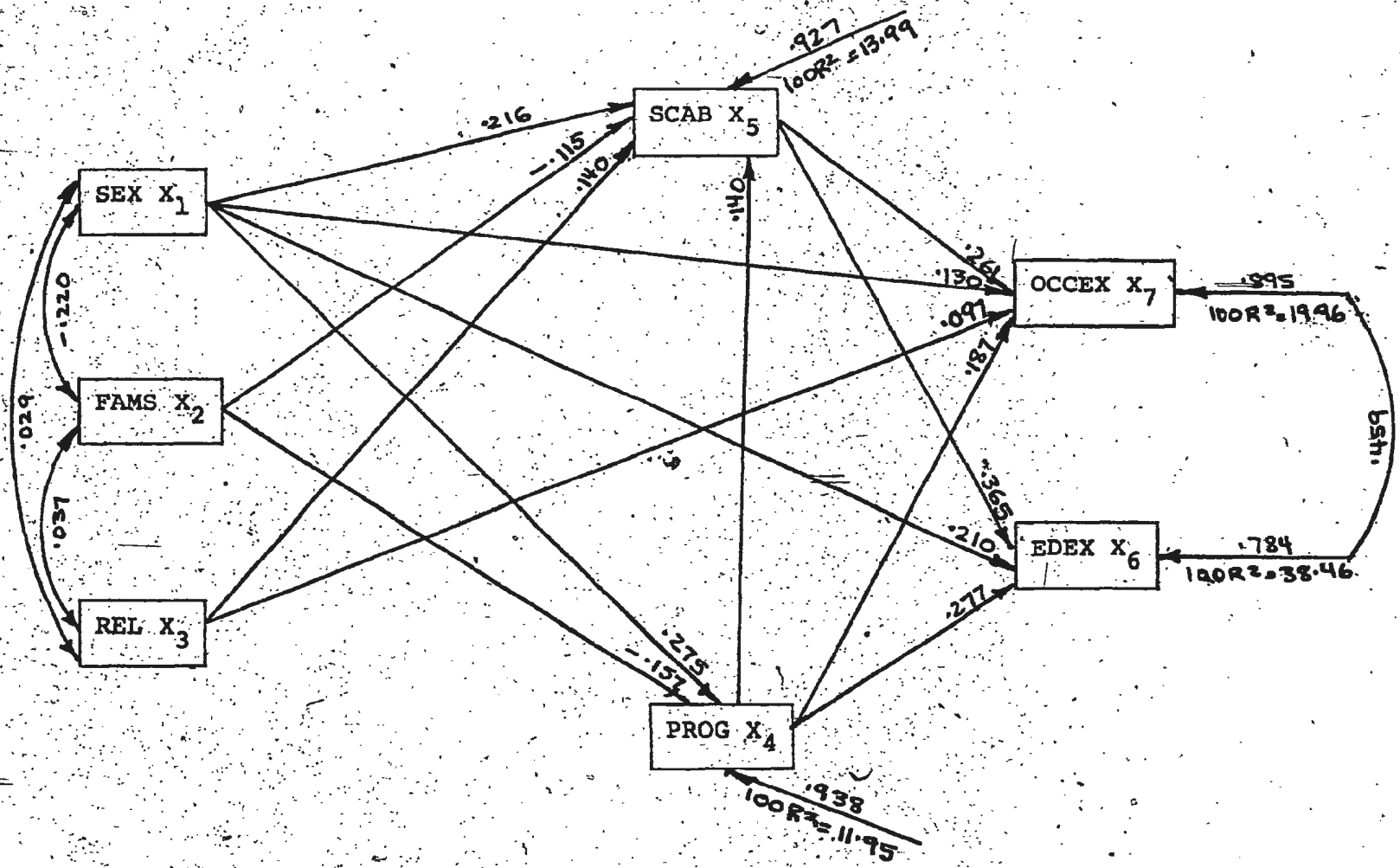

FIGURE 5C. Path Coefficients in the "Trimmed" Model: Girls Only

from the "trimmed" model. A complete list of initial correlations, recalculated correlations and differences may be found in Appendix A. For the total group the difference ranged from .000 to .064, indicating that the respecified model adequately reflects the relationships among the variables. An advantage of the trimmed model is parsimony; that is, 'explaining the most using the least'. For boys, the difference was less than .063 for all but one recalculated coefficient. The difference in this case was .123. However, the relationship in question, that between family size and self-concept of academic ability was initially -.033, thus essentially there was no relationship in this case. The recalculated coefficient .08 indicates a very weak correlation as well and so it seems that one may reasonably disregard the observed-calculated difference. For girls, all of the differences were less than .093.

The total causal effects for Model I, consisting of the net direct effects and the net indirect effects, are presented in Appendix B. The total causal effect is calculated by adding the total indirect effect with the direct effect (the path coefficient-standardized beta weight) of the predictor variable under consideration. These total effects give estimates of the relative total influence of independent variables on the dependent variables (Bulcock, 1976). Table 14 presents the total causal effect of each predictor variable and its rank. This presentation simplifies the examination of the relative influence of the different factors on the dependent variables.

TABLE 14

Rank Order Total Causal Effects: Model I

PREDICTOR	PROG		SCA		EDEX		OCCEX	
(a) Total Group								
SES	(.250)	1	(.267)	1	(.398)	1	(.212)	2
FAMS	(|-.158|)	2	(|-.050|)	4	(|.115|)	4	(|-.093|)	4
REL	(.064)	3	(.178)	2	(.108)	5	(.081)	5
PROG			(.155)	3	(.347)	2	(.171)	3
SCAB					(.306)	3	(.237)	1
(b) Boys								
SES	(.231)	1	(.289)	1	(.416)	1	(.178)	2
FAMS	(|-.155|)	2	(|-.027|)	4	(|-.119|)	4	(|.101|)	4
REL	(.030)	3	(.173)	2	(.101)	5	(.017)	5
PROG			(.166)	3	(.376)	2	(.155)	3
SCAB					(.272)	3	(.225)	1
(c) Girls								
SES	(.272)	1	(.254)	1	(.374)	1	(.243)	2
FAMS	(|-.161|)	2	(|-.137|)	4	(|-.110|)	5	(|-.085|)	5
REL	(.093)	3	(.153)	2	(.130)	4	(.154)	4
PROG			(.140)	3	(.321)	3	(.220)	3
SCA					(.356)	2	(.259)	1

Socioeconomic status emerges as the most powerful overall predictor, ranking first or second in magnitude of total causal effects for all the dependent variables. Religiosity was only significant as a determinant of self-concept of academic ability.

The most interesting observation that arises from examining the rank order of the total causal effects is that socioeconomic status is the first ranked influence on educational expectations while self-concept of academic ability is the first ranked influence on occupational expectations. "Common sense" might have dictated the reverse. The differences between first and second ranks are quite substantial in all but one case.

Model II amalgamates educational expectations and occupational expectations to form a more general measure called Ambition. The procedure for analysing this model is the same as that which was followed for examining Model I. The correlation coefficients used as the basis of analysis were presented in Tables 12A, 12B, and 12C. Table 15A presents the structural coefficients of the fully-identified Model II for the entire sample. Tables 15B and 15C present the same results for boys and girls, respectively.

The trimmed models are presented in Figures 6A, 6B, and 6C.

TABLE 15A

Structural Coefficients for the Fully-identified Model II: Total Group

INDEPENDENT VARIABLES	DEPENDENT VARIABLES								
	X_4 PROG			X_5 SCA			X_8 AMBITION		
	I	II	III	I	II	III	I	II	III
X_1 SES	.075	.250	.011	.114	.228	.019	.322	.214	.051
X_2 FAMS	-.032	-.158	.007	-.009	-.026	.012	-.063*	-.062*	.033
X_3 REL	.050**	.064**	.028	.216	.168	.046	.092	.024	.122
X_4 PROG				.257	.155	.062	1.258	.252	.165
X_5 SCA							.954	.317	.100
RESIDUAL		.944			.932			.812	
REGRESSION CONSTANT		.677			.202			-1.389	
100 R^2		10.913			13.098			34.016	

Underlined coefficients are not significant.
**Significant at .025 level.
*Significant at .005 level.
All other coefficients are significant at the .001 level.

TABLE 15B

Structural Coefficients for the Fully-identified Model II: Boys Only

INDEPENDENT VARIABLES		DEPENDENT VARIABLES								
		X_4 PROG			X_5 SCAB			X_8 AMBITION		
		I	II	III	I	II	III	I	II	III
X_1	SES	.069	.231	.016	.132	.251	.028	.341	.230	.073
X_2	FAMS	-.031	-.155	.011	+.019	+.053	.019	-.101	-.101	.048
X_3	REL	.021	.030	.037	.208	.168	.063	.002	.001	.160
X_4	PROG				.291	.166	.094	1.201	.243	.237
X_5	SCAB							.842	.299	.136
RESIDUAL			.951			.931			.814	
REGRESSION CONSTANT			.791			2.103			-1.093	
100 R^2			9.594			13.250			33.701	

Underlined coefficients are not significant.
All other coefficients are significant at .001 level.

TABLE 15C

Structural Coefficients for the Fully-identified Model II: Girls Only

INDEPENDENT VARIABLES	DEPENDENT VARIABLES								
	X_4 PROG			X_5 SCAB			X_8 AMBITION		
	I	II	III	I	II	III	I	II	III
X_1 SES	.083	.272	.015	.101	.216	.025	.286	.187	.072
X_2 FAMS	-.033	-.161	-.010	-.036	-.115	.016	-.017	-.016	.046
X_3 REL	.084**	.093**	.045	.194	.140	.069	.296***	.065***	.198
X_4 PROG				.216	.140	.082	1.309	.260	.234
X_5 SCAB							1.113	.346	.151
RESIDUAL		.934			.927			.803	
REGRESSION CONSTANT		.553			1.992			-1.968	
100 R^2		12.810			13.985			35.453	

Underlined coefficients are not significant.
***Significant at .05 level.
**Significant at .025 level.
All other coefficients are significant at the .001 level.

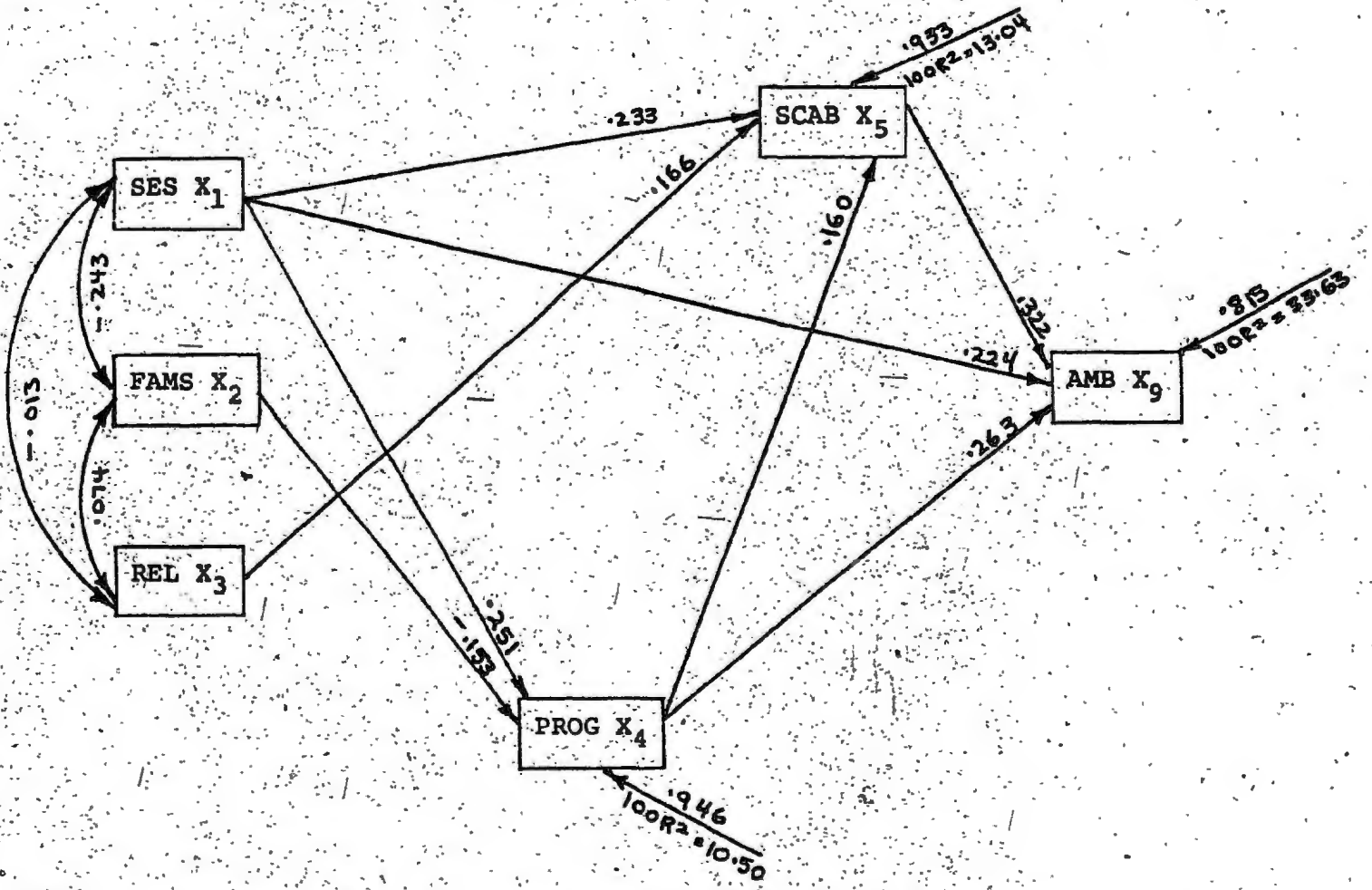

FIGURE 6A. "Trimmed" Path Diagram of the Summary Model: Total Group

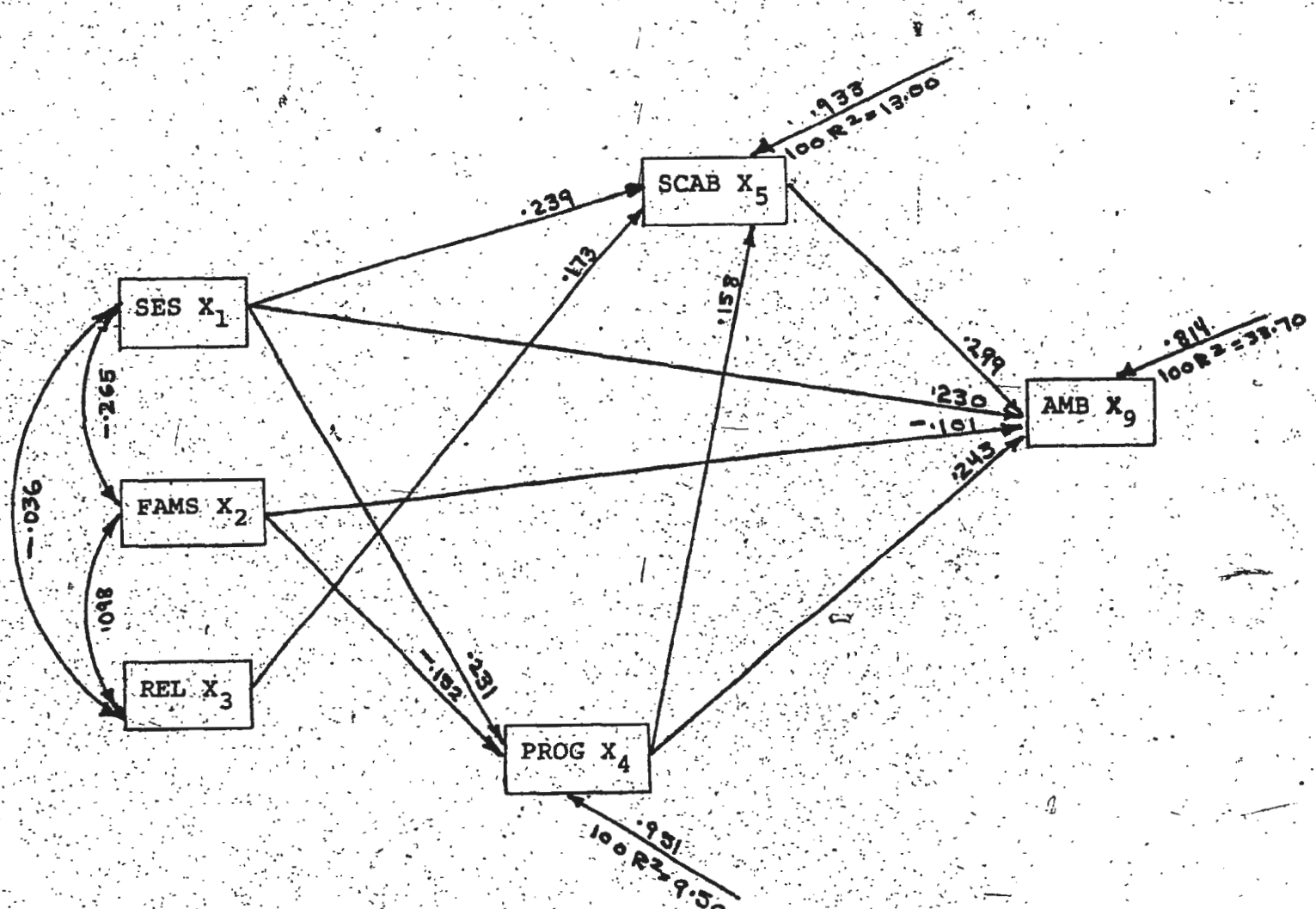

FIGURE 6B. "Trimmed" Path Diagram of the Summary Model: Boys Only

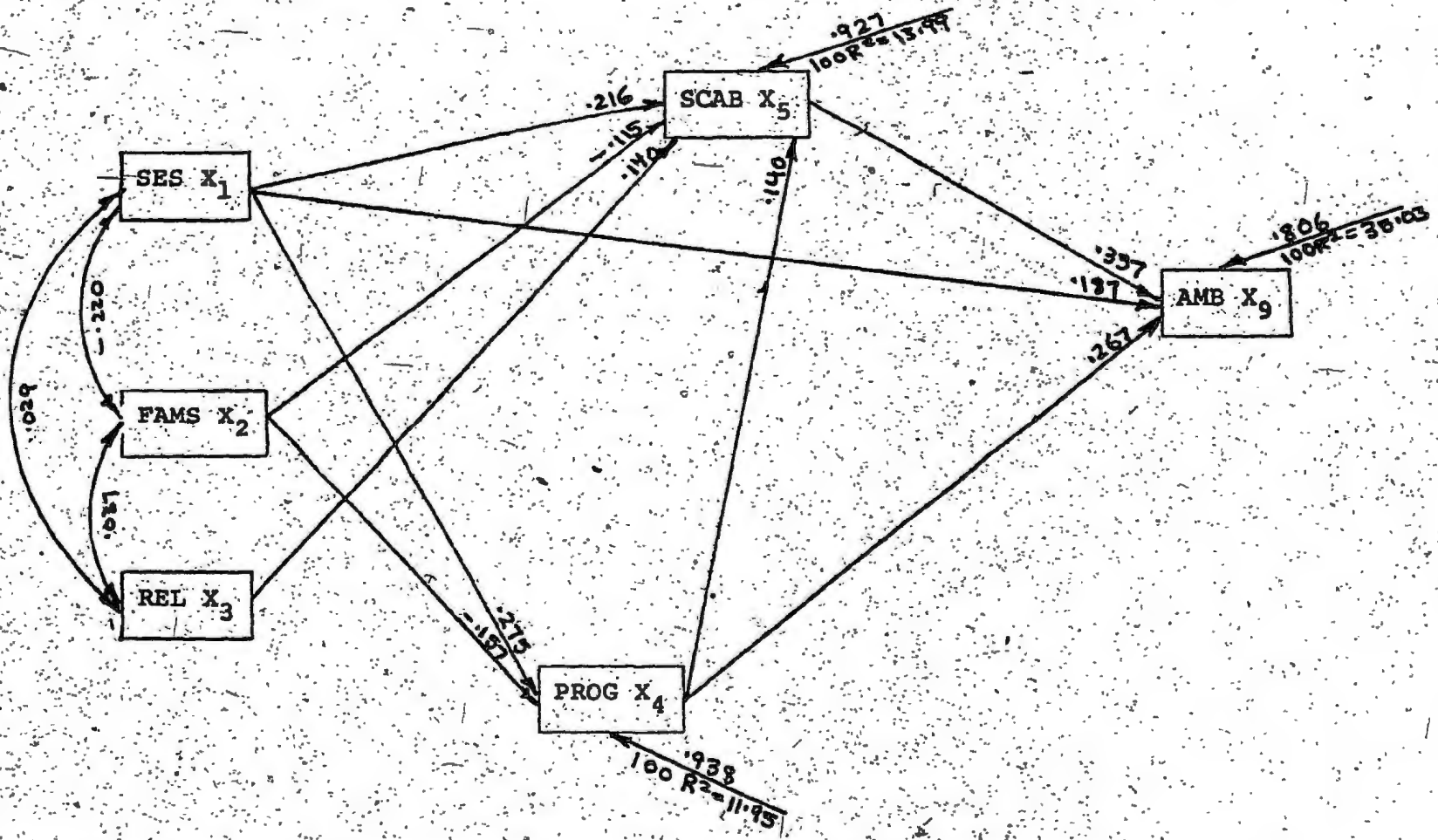

FIGURE 6C. "Trimmed" Path Diagram of the Summary Model: Girls Only

Appendix A presents the observed and calculated correlation coefficients resulting from the respecification of Model II. The observed minus calculated differences were all substantially less than .01.

The total causal effects of ambition, comprising the total indirect effect and the direct effect, are presented in Appendix B. Table 16 provides a summary of this appendix by showing the total causal effect of each predictor variable and its rank.

Examining Model II provides a brief summary of the influences of the various factors on a more general measure of expectations called "Ambition". An examination of the reduced models results in some interesting observations. Self-perceived strength of religious belief has a larger influence on self-concept for boys than for girls. The family background factors of socioeconomic status and family size have a larger influence on the ambition formation process of boys than girls while school-related factors have a larger influence on the ambition formation process of girls than boys.

TABLE 16

Rank Order Total Causal Effects: Model II

PREDICTOR	PROG		SCA		AMBITION	
(a) Total Group						
SES	(.250)	1	(.267)	1	(.361)	1
FAMS	(|-.158|)	2	(|-.050|)	4	(|-.118|)	4
REL	(.064)	3	(.178)	2	(.096)	5
PROG			(.155)	3	(.301)	3
SCAB					(.317)	2
(b) Boys						
SES	(.231)	1	(.289)	1	(.372)	1
FAMS	(|-.155|)	2	(|.027|)	4	(|-.131|)	4
REL	(.030)	3	(.173)	2	(.059)	5
PROG			(.166)	3	(.293)	3
SCAB					(.299)	2
(c) Girls						
SES	(.272)	1	(.254)	1	(.346)	1
FAMS	(|-.161|)	2	(|-.137|)	4	(|-.106|)	5
REL	(.093)	3	(.153)	2	(.142)	4
PROG			(.140)	3	(.308)	3
SCAB					(.346)	1

CHAPTER 5

INTERPRETATION

Sex Differences

It is quite apparent that different factors affect the ambition formation of male and female high school students in Newfoundland. This finding is consistent with many other studies which indicate that the various socializing institutions are acting on boys and girls to effectively produce two substantially different sub-populations of students in terms of interests, aspirations and motivations (Bulcock, 1975). It is important to examine these differences in light of the increasing emphasis on equality of opportunity for girls that has been fostered by the Women's Liberation movement.

It is to be noted that the significant factors which affect program enrollment--family size and socioeconomic status--are the same for boys and girls. Family size is seen to have a moderately strong negative effect on program enrollment for both boys and girls. That is, a student from a small family is more likely to be enrolled in a university preparatory program than a student from a large family, and this likelihood is the same if that student is male or female. However, there is a moderate difference in the effect of socioeconomic status. Socioeconomic status, although a strong influence, is more important for determining

the program enrollment of girls than of boys. This finding is unexpected in that girls, who have a modest advantage in terms of verbal skills and are more tractable in school, generally perform better in school. One would expect socioeconomic status to have a smaller impact on the girls than on the boys because of their overall academic advantage regardless of background. One possible explanation for this finding is that the girls in this sample were placed in university preparatory programs if it was felt there was a chance, determined by family resources, of their attending a post-secondary institution. Otherwise, they may have been placed in a general program which would equip them with some skills, for example, secretarial, to more easily enter the work force after high school completion. It must be emphasized that Newfoundland is in the process of cultural evolution since it is considered a developing province. It is also a male-dominated society with fewer opportunities for occupational attainment for girls. In all likelihood, the traditional value placed on educating sons first and at all costs may be working more strongly in the Newfoundland environment than elsewhere in North America.

It is clear that religiosity has no definite influence on program enrollment for either boys or girls. However, the indication is that there may be a weak causal relationship between religiosity and program enrollment for girls (see Table 13C). Also, eliminating the path from religiosity to program enrollment does reduce the variance explained by

almost 10% for girls whereas it leaves the variance explained essentially the same for boys (see Tables 13B, 13C, and Figures 6B, 6C). Since this is the first study to examine religiosity in such a model there is no prior indication that a weak causality exists and in the interests of scientific accuracy only a tentative explanation will be offered.

Possibly girls who consider themselves to be strongly religious are more traditional in other spheres as well, particularly school-oriented ones. These girls may be more likely to seriously apply themselves to their studies and devote more time to them resulting in higher grades and university-stream program placement. Serious consideration of this finding should be reserved until similar results are obtained in replicatory studies.

The processes affecting ambition formation of boys and girls can be seen to diverge when self-concept of academic ability is examined. Not only are the weights assigned to the factors in common for boys and girls different, but the factors themselves are dissimilar. That is, family size, which has a moderate influence on the development of the self-concept of academic ability for girls, appears to have no direct influence for boys. Sex differences with respect to the other variables, socio-economic status, religiosity and program enrollment, work in the opposite direction. Thus, these variables have effects on the outcome measures which, in general, are stronger for

boys than girls. However, the discussion of the differences will be limited to two variables: family size and religiosity.

It was argued that since family size has a hypothesized effect on academic ability it should therefore influence self-concept of academic ability. That is, students from smaller families were more likely to be academically capable than those from larger families and therefore should have higher self-concepts of academic ability, be that advantage attributable to pre-natal advantages or to increased interaction with adults, i.e., the nature-nurture argument. Thus, the finding that family size affects the self-concept of academic ability of girls but not of boys is unexpected. One observation arises immediately: it seems quite clear that more credence must be given to the proponents of the nurture theory. Clearly, the numbers of boys and girls born in large families overall are equal, so the biological argument may be ruled out. Obviously, then, this difference must be attributed to different socialization practices for boys and girls. It can be reasonably argued that students in small families are more likely to receive similar treatment from parents in terms of interaction, encouragement and motivation be they boys or girls. This leads us to believe that the difference in treatment probably arises in larger families. A possible explanation is that boys from large families receive a great deal more encouragement and incentive from significant others to become independent, to achieve, and therefore to develop positive self-concepts generally

which influence their self-concept of academic ability. This encouragement may not be given as much or as often to girls. Also, girls may be expected to take care of younger siblings which would effectively restrict their efforts to develop independence in that they would be bound to restrictive home environments. Possibly forced interaction with younger siblings may reduce academic growth facilitated by interacting with same-age peers. Conversing with verbally and intellectually undeveloped younger brothers and sisters may effectively retard developing self-confidence in the use of newly-acquired intellectual skills because of lack of practice opportunities afforded in this situation. Parental encouragement has been found to be more important for girls than for boys (Coffin, 1975) and clearly large-family parents can afford less time for all children, be they male or female.

The second interesting result that arises from examining the factors affecting self-concept of academic ability is that religiosity has a slightly stronger influence for boys than for girls. That is, strong religious feelings are slightly more likely to be associated with high self-concepts of academic ability for boys than for girls. A tentative explanation for this phenomena is as follows: Traditionally, adolescence is one of the periods in a person's life when he is attempting to establish a unique identity and make decisions as to his future role in life. As a rule, boys express this inner turmoil more often by taking

part in deviant behavior than do girls and as a result may be receiving more negative sanctions by the various societal agencies such as the family, the church and the home. However, those youths who readily accept the value orientations provided by a religion, whatever it may be, may suffer from less inner strife. That is, if a student is not subject to inner conflict because of an effective internalized value system, he is more likely to have a positive self-concept which may manifest itself as a positive self-concept of academic ability. Girls are traditionally more religious and less rebellious. Thus, it can be reasonably expected that religiosity would have less of an effect on the self-concept of girls.

The same factors are seen to influence the educational expectations of boys and girls but their effects are in different proportions. It can be seen that for boys, program enrollment is the most significant factor influencing educational expectations but for girls the most significant direct effect is that of self-concept of academic ability. That the type of program in which a student is enrolled should be the most significant influence on what a student's educational expectations are would seem to be self-explanatory. That is, if a student is not enrolled in the Matriculation stream, he is effectively barred from entering university and most advanced courses in the technical schools. That self-concept of academic ability is of prime importance for girls is, however, an unexpected finding. It is clear that self-concept

has the largest direct effect over and above the effects of the family background and program enrollment. Other research (Alexander & Eckland, 1974) indicates that family background factors are more important determinants of educational attainment for girls than is mental ability, whereas the reverse is true for boys. If we take program enrollment to be the proxy measure of ability, then these findings are substantiated by this research. However, in this sample, socioeconomic status has a larger total causal effect on educational expectations for boys than for girls. Why it should be the case that self-concept of academic ability should be the most significant factor for girls cannot be postulated at this time.

The reduced model is a good description of the factors working to affect educational expectations since very little variance was lost from the Fully-identified Model. The model is a slightly better description for the boys in that 40.5% of the variance is explained, almost 2% more than for the girls. Presumably there are other missing factors, two of which might be IQ and the financial resources of the student.

The process by which occupational expectations are developed is clearly different for boys and girls. Unexpectedly, for boys only one factor in this model has a direct influence on Occupational Expectations. Self-concept of Academic Ability, by itself, explains over 7 per cent of the variance in Occupational Expectations. When the reduced

model is compared with the fully-identified model, it can be seen that all the other four factors together add only 3% to the variance explained. In that self-concept of academic ability is also ranked first for girls, it suggests that an "Horatio Alger" myth may be at work for Newfoundland youth. That is, they may see the road to occupational success as being dependent primarily on their personal characteristics and worth rather than through sponsorship (family background) or the educational system.

This model explains almost three times more variance for girls than boys. Four factors have a significant direct influence on the formation of occupational expectations for the girls in the Reduced Model (see Figure 5C). The first three factors, in order of strength of influence: self-concept of academic ability, program enrollment, socioeconomic status were expected results in terms of strengths and relative ordering. The finding that religiosity has a direct influence on Occupational Expectations, given the effect it had on the intervening variables, was unanticipated. This finding may lend some tentative support to the Protestant Ethic hypothesis for girls. That is, those girls who have internalized a strong 'Calvinist' value orientation to religion may strive to work hard to achieve occupational success. That religiosity does not have a direct influence on Educational Expectations but does on Occupational Expectations lends even more credence to the 'work ethic' hypothesis.

An examination of the correlation between the residuals of educational expectations and occupational expectations for boys and for girls (see Figures 5B and 5C), results in the observation that the correlation between educational and occupational expectations is better accounted for by the predictor variables, in this study, for boys than for girls. That is, for boys, this model is a better explanatory scheme for the general construct we have termed "ambition". It is clear that different factors are working to affect occupational and educational expectations for girls. However, we may assume that the influences are more similar for boys. Perhaps this suggests that our aggregate measure of ambition may be misspecified for girls. However, we shall examine the model so produced for two reasons. Firstly, it provides a basis for comparison with the model for boys and secondly, it provides a summary measure for the ambition process as developed in this study.

When the aggregate measure of Ambition is examined providing a summary, the difference in the process for boys and girls is reconfirmed. It should be noted that in the reduced model, more variance in Ambition is explained using fewer predictors for girls than for boys. Family size was found to be an extra influence on boys. This is consistent with the findings of McClendon (1976) who found that the direct effect of siblings on years of school completed is twice as great for males as for females. McClendon argued that "sons are more likely than daughters to drop out of

school early to supplement family income in case of need, and need tends to be greater as the size of the family increases". Bulcock (1975) also found that boys were more adversely affected by family size than were girls.

It is interesting to note that family size is a factor in the Ambition formation of boys but not of girls when one considers that the reverse is the case when self-concept of academic ability is considered.

It is clear that family status plays a lesser role in the ambition formation process for girls than for boys. That is, the current experience factors of self-concept of academic ability and program enrollment are significantly more important for girls than is family background. For boys, the present experience variables have only a slightly greater effect than the family background factors. This is contrary to the results reported in other studies (Alexander & Eckland, 1974; McClendon, 1976). Family background was found to explain more of the variation in post-secondary educational attainment for girls than for boys. There are two possible explanations for the discrepancies in these findings. First, the effect of sex in the basic model may be different in Newfoundland because of its unique social climate. Alternatively, this result may be peculiar to this particular sample. In any case, a replication of this study in the Newfoundland situation seems to be merited.

Observations on the General Model

Pooled sample model:

Socioeconomic status emerges as the most significant factor in this model for explaining ambition. Not only does it have a strong direct effect on each of the dependent variables but also has a strong indirect effect on educational expectations, occupational expectations and their aggregate measure called Ambition by means of its very significant influence on program enrollment and self-concept of academic ability. This lends credence to the proponents of the theory of the importance of the social origins in affecting ambition formation. Students entering the school situation bring with them distinctly different backgrounds and those from the higher strata have been shown to have the advantage. These students seem to be reinforced by their placement in the university preparatory programs and have higher self-concepts of academic ability.

Large family size has been shown to be detrimental to high expectations, which is consistent with the findings in their field. The most significant effect of family size, however, was on program enrollment. Those students from larger families are less likely to be placed in university-type preparatory programs. Whether this is due to the fact that children from large families perform less well academically as Zajonc (1976) claims, can not be adequately tested since the data did not provide for an evaluation of academic achievement. Nevertheless, this conclusion seems to be

indicated by our findings. It is interesting to note that program enrollment had the smallest direct influence on self-concept of academic ability. It was hypothesized that enrollment in a university preparatory program would have a large influence on self-concept. Obviously other missing factors are at work--probably including academic achievement. Program enrollment does have a significant effect on self-concept of academic ability, but it is not as strong as the review of the literature would have suggested.

The effect of religiosity was found to be strongest on self-concept of academic ability. The theory that has been proposed, namely, that there is a positive correlation between self-image and acceptance of religious ideals (that of a loving, forgiving God) has been shown to have credence. In fact, one could venture to say that a tentative causal relationship has been established in that a person who sees himself as being more religious is likely to have a positive self-concept of academic ability as demonstrated by the significant path coefficient.

By explaining the total causal effects (direct plus indirect) an assessment of the relative overall contribution of religiosity to the model of ambition formation is facilitated. The indirect effect of religiosity on educational and occupational expectations is significant although the only significant direct effect in the total model is on self-concept of academic ability. With the indirect effects added, religiosity exerts a significant total causal effect

on educational expectations (.108). The increase from .035 to .108 comes about largely because of the effects of religiosity on self-concept of academic ability, which in turn affects educational expectations. Although religiosity has the smallest total causal effect of any other predictor in the model for educational expectations, the effect is substantial. The total causal effect of religiosity on occupational expectations is significant but modest (.081). Once again, the total indirect effect (.051) of religiosity through self-concept of academic ability had a significant influence in increasing the size of this parameter. It must be noted that the sex effect is working to magnify the effect of religiosity for boys and minimize it for girls in the total model since there is a negative total direct effect of religiosity on occupational expectations for boys and a positive effect for girls. Thus, this combined model masks the true effects of religiosity on occupational expectations. There is a significant and substantial effect for girls but a negligible effect for boys. Thus, the addition of the variable religiosity has added substantive explanatory power to this model of ambition formation.

Our model supports the finding that family background plays a significant role in the formation of educational expectations. When the total direct effects of the antecedent variables on educational expectations are examined, it is clear that socioeconomic status, although influential, is more modest in terms of direct effect than are the school-

related factors of program enrollment and self-concept of academic ability. This supports the findings of Bulcock and Lee (1976). The relationship between socioeconomic status and educational expectations may be accounted for by the realistic evaluations of students of their educational plans. That is, those students from wealthier families can plan on attending post-secondary institutions for longer periods of time since their families can provide the financial resources and do provide encouragement to extend their schooling. One might conclude that students feel that ability is of prime importance in eventual occupational attainment whereas family background factors have a greater influence on immediate educational plans. That is, attending university may depend more on "what you are" but occupational success may ultimately depend on "who you are". Family size was found to have a moderate negative influence on post-secondary educational plans. However, this effect was not as substantial as had been expected given the literature review.

Examining the factors affecting educational expectations demonstrates that the three sets of factors--social origin, attitudes and present experience--each have a strong influence on the future plans of the youth. That almost forty per cent of the variance of educational expectations has been explained by this model supports the theory that all of the three factors play important roles in explaining the youth's plans.

It was argued that the factors which affect educational expectations should also affect occupational expectations. This was largely found to be true; however, the model presented provides a far more complete description of the process of forming educational expectations than occupational expectations. Almost three times more of the variation in educational expectations is accounted for by this ordering of variables. Clearly, this model does not provide a very adequate explanation of occupational expectations.

When educational and occupational expectations are combined to form the measure called Ambition a summary is provided. The evidence from this model reinforces the notion that the social origins and present experience domains are interrelated and each is important in determining a youth's future plans. The social origins variables, as causally ordered in this model, are seen to be important determinants of the student's placement in a program and his self-concept of academic ability. Once this influence is taken into consideration, the most significant influence on the youth's ambition is his self-concept and secondly his program enrollment.

Serendipitous findings:

A number of interesting results were obtained from the previous analysis that were briefly touched upon but not expanded to any great degree. The discussion will be limited

to three findings and primarily deal with occupational expectations:-

i) The model as proposed provides a much more adequate explanation of how educational expectations are formed than how occupational expectations are formed. In the past, there has been a concentration on examinations of educational expectations and relatively little on occupational expectations. As a rule, studies of status attainment models take educational expectations to be a predictor of occupational attainment. Logically, similar factors should be influencing both measures of ambition. One possible explanation is that perhaps asking high school students to make an assessment of their occupational plans is a bit premature. Granted, a large number of students may be injected (directly) into the labour market after high school; however, it is probable that these students do not equate their first post-high school jobs with life-long occupations. It is also logical to assume that the large majority of those students who are planning on university attendance are also undecided as to career goals. What is being suggested is that one possible reason for the lack of explanatory power for occupational expectations in this model may be indecision of career goals.

ii) When the total causal effects of the outcome variables of educational and occupational expectations are examined, it becomes apparent that socioeconomic status ranks first in influence on educational expectations while self-concept of academic ability ranks first in influence

on occupational expectations. It would seem that the reverse should have, logically been expected. That is, past school experience would be expected to be the prime determinant of further schooling plans. Also, if one accepts the logic set forth in the preceding section that occupational expectations are largely flexible at this period in the adolescent's life, then it would seem that youths would be likely to expect their occupational status to be similar, or slightly better than that in the home in which they were raised. That self-concept of academic ability does rank first in influencing occupational expectations is encouraging. It is clear that self-concept is more amenable to manipulation by varibus school factors than is socio-economic status.

iii) The third surprising result, in view of the other findings, is the relationship of a direct causal effect of religiosity on occupational expectations for girls. Religiosity was found to have only substantive indirect effects on the educational expectations for girls and for both ambition measures for boys. This result indicates that girls who consider themselves to be religious are more likely to have higher occupational expectations. Yet, the correlation coefficient between religiosity and socioeconomic status is insignificant thereby ruling out any explanation regarding class-based religious beliefs and participation. Perhaps some tentative support for Weber's Protestant Ethic thesis as specified by Kim has been found for girls. That is, girls

may have internalized 'Calvinist' beliefs and values. It must be emphasized that the measure of religiosity used in this study does not correspond to a measure of Calvinist beliefs and values but the basic relationship between religiosity and expectations of worldly success are indicated for girls. Before this can be taken as a valid relationship, replication in a random population would be necessary.

CHAPTER 6

SUMMARY AND CONCLUSIONS

This study was concerned with examining the process of ambition formation of Newfoundland high school students. The standard model relating family background factors and school experience factors to ambition was expanded by the addition of a new variable hitherto not used in a model of this nature: religiosity. Religiosity was defined as "self-perceived strength of religious belief" which was assumed to reflect more adequately the value orientation of the adolescent to religion than the more traditional measures of "outward" religiosity such as church attendance. It was hypothesized that such a variable might have considerable explanatory force for Newfoundland students because of the nature of the schooling process in Newfoundland and the general concern of Newfoundlanders with issues of a religious nature.

Family background factors were measured by socio-economic status of the family and number of children in the family. Together with religiosity, these three factors were taken to be exogenous variables in the models developed. They were related to the school experience factors which were measured by the student's program enrollment and self-concept of academic ability. All of these variables were then related to what has been termed throughout this study as

ambition. In the first model educational and occupational expectations were taken to be separate outcomes. In the second model, they were combined to form an aggregate measure of ambition. It was felt that this was a good summary measure for future goals of students. The analysis was completed on a data set compiled by Holloway, which although not a random sample, was specifically gathered in schools considered to be representative of all major types of Newfoundland schools. Regression analysis and path analysis were employed as the means of evaluating the relationships among the variables selected.

The general conclusions arising from an examination of the results are as follows:

1) The model of ambition formation is substantively different for boys and for girls.

2) The model presented more accurately depicts the development of educational expectations than occupational expectations.

3) Both social origins factors and school experience factors are found to have significant influences on ambition formation.

4) Religiosity was found to have a substantive influence of the development of self-concept of academic ability.

5) Religiosity had an indirect influence on ambition formation by means of its influence on self-concept of academic ability and had a direct influence on the occupational expectations of girls. Adding religiosity as a variable to

the ambition formation process results in increased explanation of how the ambition formation process operates.

Several implications of these conclusions for educational theory and practice must be noted. Still much more research is necessary to identify all the variables affecting ambition formation. Since the process has been found to be substantively different for boys and girls, any future research should examine the process for both groups, or, at the very least, use sex as a variable within the model.

Some support has been found for the influence of religiosity in Newfoundland adolescents. It seems that religious value orientations may have more influence than they have recently been credited with. There is an implication here that perhaps denominational schooling could be a more positive influence on the lives of the students than recently believed.

Further research is necessary to confirm the above findings before any policy implementation could be considered. It is unclear if the results obtained in this study were related to the sampling procedure or whether they legitimately reflect the Newfoundland situation. It certainly seems that more research on religiosity as a value orientation is merited. A number of unanswered questions still remain:

1) Why does religiosity directly affect the Occupational Expectations of girls?

2) Why does religiosity have a greater influence of the Self-concept of Academic Ability of boys than of girls?

3) Is the observed relationship between religiosity and Self-concept of Academic Ability real or is it a localized phenomenon?

Validation of measuring religiosity as a self-rating value orientation question will occur only after replication of this study or the use of this measure in different contexts.

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APPENDIX A

Observed and Calculated Correlations

Correlation	Observed	Calculated	Observed - Calculated
A. Total Group			
r_{12}	-.234	--	--
r_{13}	-.013	--	--
r_{14}	.288	.288	0
r_{15}	.277	.277	0
r_{23}	.074	--	--
r_{24}	-.214	-.214	0
r_{25}	-.103	-.078	-.025
r_{34}	.050	-.014	.064
r_{35}	.170	.161	.009
r_{45}	.235	.224	.011
i) Model I			
r_{16}	.424	.424	0
r_{26}	-.204	-.152	-.052
r_{36}	.094	.042	.052
r_{46}	.455	.451	.004
r_{56}	.454	.451	.003
r_{17}	.234	.191	.035
r_{27}	-.138	-.079	-.059
r_{37}	.071	.050	.021
r_{47}	.236	.233	.003
r_{57}	.311	.309	.002

Appendix A (cont'd.)

Correlation	Observed	Calculated	Observed - Calculated
ii) Model II			
r_{18}	.389	.389	0
r_{28}	-.199	-.136	-.063
r_{38}	.082	.045	.037
r_{48}	.403	.400	.003
r_{58}	.445	.443	.002
B. Boys			
r_{12}	-.265	--	--
r_{13}	-.036	--	--
r_{14}	.271	.271	0
r_{15}	.276	.233	.043
r_{23}	.098	--	--
r_{24}	-.213	-.213	0
r_{25}	-.033	.080	-.123
r_{34}	.007	-.022	.029
r_{35}	.166	.162	.004
r_{45}	.224	.219	.005
i) Model I			
r_{16}	.445	.432	.013
r_{26}	-.219	-.167	-.052
r_{36}	.075	.028	.047
r_{46}	.479	.476	.003
r_{56}	.428	.414	.014

Appendix A (cont'd.)

Correlation	Observed	Calculated	Observed - Calculated
r_{17}	.204	.064	.140
r_{27}	-.147	.021	-.168
r_{37}	-.001	.043	-.042
r_{47}	.175	.058	.117
r_{57}	.268	.268	0
ii) Model II			
r_{18}	.405	.393	.012
r_{28}	-.224	-.238	.014
r_{38}	.034	.025	.009
r_{48}	.394	.392	.002
r_{58}	.420	.418	.002
C. Girls			
r_{12}	-.220	--	--
r_{13}	.029	--	--
r_{14}	.310	.309	.001
r_{15}	.289	.288	.001
r_{23}	.037	--	--
r_{24}	-.217	-.217	0
r_{25}	-.188	-.187	-.001
r_{34}	.095	.002	.093
r_{35}	.155	.142	.013
r_{45}	.245	.230	.015

Appendix A (cont'd.)

Correlation	Observed	Calculated	Observed - Calculated
i) Model I			
r_{16}	.401	.400	.001
r_{26}	-.187	-.174	-.013
r_{36}	.136	.057	.079
r_{46}	.432	.424	.008
r_{56}	.494	.488	.005
r_{17}	.266	.264	.002
r_{27}	-.132	-.063	-.069
r_{37}	.158	.137	.021
r_{47}	.300	.287	.013
r_{57}	.359	.354	.005
ii) Model II			
r_{18}	.373	.373	0
r_{28}	-.177	-.166	-.011
r_{38}	.148	.057	.091
r_{48}	.413	.047	.006
r_{58}	.477	.472	.005

APPENDIX B

TABLE 1

Total Causal Effects of Predictor Variables for the Total Group

Independent Variables	Dependent Variables	Total Indirect Effects	Total Direct Effects	Total Causal Effects
X_1 SES	PROG	--	.250	.250
	SCAB	.039	.228	.267
	EDEX	.157	.241	.398
	OCCEX	.096	.116	.212
	AMB	.147	.214	.361
X_2 FAMS	PROG	--	-.158	-.158
	SCAB	-.024	-.026	-.050
	EDEX	-.062	-.053	-.115
	OCCEX	-.033	-.060	-.093
	AMB	-.056	-.062	-.118
X_3 REL	PROG	--	.064	.064
	SCAB	.010	.168	.178
	EDEX	.073	.035	.108
	OCCEX	.051	.030	.081
	AMB	.072	.024	.096

(cont'd.)

Table 1 (cont'd.)

Independent Variables	Dependent Variables	Total Indirect Effects	Total Direct Effects	Total Causal Effects
X_4 PROG	SCAB	--	.155	.155
	EDEX	.047	.300	.347
	OCCEX	.038	.133	.171
	AMB	.049	.252	.301
X_5 SCAB	EDEX	--	.306	.306
	OCCEX	--	.237	.237
X_6 EDEX	AMB	--	.317	.317

TABLE 2

Total Causal Effects of Predictor Variables for Boys

Independent Variables	Dependent Variables	Total Indirect Effects	Total Direct Effects	Total Causal Effects
X_1 SES	PROG	--	.231	.231
	SCAB	.038	.251	.289
	EDEX	.154	.262	.416
	OCCEX	.082	.095	.178
	AMB	.142	.230	.372
X_2 FAMS	PROG	--	-.155	-.155
	SCAB	-.026	.053	.027
	EDEX	-.044	-.075	-.119
	OCCEX	-.006	-.095	-.101
	AMB	-.03	-.101	-.131
X_3 REL	PROG	--	.030	.030
	SCAB	.005	.168	.173
	EDEX	.057	.044	.101
	OCCEX	.041	-.024	.017
	AMB	.058	.001	.059

(cont'd.)

Table 2 (cont'd.)

Independent Variables	Dependent Variables	Total Indirect Effects	Total Direct Effects	Total Causal Effects
X_4 PROG	SCAB	--	.166	.166
	EDEX	.045	.331	.376
	OCCEX	.037	.078	.115
	AMB	.05	.243	.293
X_5 SCAB	EDEX	--	.272	.272
	OCCEX	--	.225	.225
	AMB	--	.299	.299

TABLE 3

Total Causal Effects of Predictor Variables for Girls

Independent Variables	Dependent Variables	Total Indirect Effects	Total Direct Effects	Total Causal Effects
X_1 SES	PROG	--	.272	.272
	SCAB	.038	.216	.254
	EDEX	.165	.209	.374
	OCCEX	.116	.127	.243
	AMB	.159	.187	.346
X_2 FAMS	PROG	--	-.161	-.161
	SCAB	-.022	-.115	-.137
	EDEX	-.093	-.017	-.110
	OCCEX	-.066	-.019	-.085
	AMB	-.090	-.016	-.106
X_3 REL	PROG	--	.093	.093
	SCAB	.013	.140	.153
	EDEX	.080	.050	.130
	OCCEX	.056	.098	.154
	AMB	.077	.065	.142

(cont'd.)

Table 3 (cont'd.)

Independent Variables	Dependent Variables	Total Indirect Effects	Total Direct Effects	Total Causal Effects
X_4 PROG	SCAB	--	.140	.140
	EDEX	.050	.271	.321
	OCCEX	.036	.184	.220
	AMB	.048	.260	.308
X_5 SCAB	EDEX	--	.356	.356
	OCCEX	--	.259	.259
	AMB	--	.346	.346